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THE ALTERNATIVE

THE ALTERNATIVE

A STUDY IN PSYCHOLOGY

"We fools of Nature."—*Hamlet.*

"Our bodies are our gardens to the which our wills are gardeners, so that if we will plant nettles or sow lettuce, set hyssop and weed up thyme, supply it with one gender of herbs or distract it with many, either to have it sterile with idleness or manured with industry, why, the power and corrigible authority of this lies in our wills."—*Othello.*

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THE Author of *The Alternative* is indebted to Mr. Henry Sidgwick for the following opinion of the work communicated in a letter to the Editor :—

"I have had an unexpected interim of enforced cessation from my work, which I have employed in reading about half the proof-sheets you sent me. Without reading any more—which for the present I have not time to do—I feel no doubt that the book deserves the attention of all students of philosophy, from the amount of vigorous, precise, and independent thinking that it contains — thinking which appears to me generally consistent so far as it has been completely developed, though at some important points the work of definition and analysis does not seem to me to have been carried far enough. I also find the terse forcible individuality of the style attractive on the whole, though I cannot but wish that the Author had somewhat restrained his impulse to innovate in technical terminology."

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INTRODUCTION.

I.

If I am not deceived, the following pages will show that, in so far as the study of Mind is concerned, those who have affected to employ the method of research which exclusively proceeds on intuition and deduction have been false to the method; have been betrayed into a morass of indefinite ideas and unwarranted assumptions; have, as regards the general, mistaken parts for their wholes; have been extremely perfunctory, so that while they have been ambitious to achieve exhaustive explanation, they have not been at pains to provide for themselves solid standing ground; have got themselves into such a plight that their motions are no longer a means of progress; and that they have brought unmerited disgrace on the method which their indolence has misapplied.

I show that a legitimate and vigorous use of the method might have anticipated induction as regards the existence of an unconscious part of the mind, and of unconscious mental events of which conscious mental events are effects. One of the most famous of the philosophers who have brought this reproach on deduction has

given us an elaborate treatise on *pure* Reason, while leaving us to popular indefiniteness respecting Reason. Discussions about the relation of experience to knowledge abound, while a part of experience has been universally mistaken for the whole. An unimportant kind which it was convenient to Logicians to put in relief under the name Judgment, has masked one of the most important of the differences it behoves philosophy to distinguish, the difference between Apprehension and Judgment properly so called. Recognition is due to a *latent* bearing of likeness of a certain degree on the mind. This bearing is now for the first time made known. The existence of consciousness void of self-consciousness or what Leibnitz terms Apperception was overlooked. Unconscious knowledge was ignored, although it should have been obvious that a man is not necessarily ignorant of what he is not thinking about. When the Mathematician is in coma, in dreamless sleep, or absorbed in a game of whist, his knowledge of mathematics persists. A latent operation of instances on the mind, one which causes general syntheses that first obtain as unconscious knowledge, has been mistaken for an operation of evidence, and confounded with inference—with induction.

Complements of attributes are (§ 110) the supports of the constituting attributes. Failure to imagine that a composite could be in the relation of support to the composing parts, combined with the necessity of thought which requires that attribute supposes support, occasioned the idea of the figment, Substance; which, like a foreign body in an organism, has been from the first fretting and diseasing its *habitat*. Of this philosophy is now, for the first time, rid.

What confusion must have reigned to give plausibility to the desperate doctrine, that the mind may be conversant about things inconceivable! Infinity and the First Cause are held by Sir William Hamilton to be things inconceivable, things unthinkable, and, nevertheless, things about which the mind is somehow conversant. The doctrine pretends that its marvel is determined by a law which it names the Law of the Conditioned. It has been approved by the adhesion of such notable minds as those of Mr. Herbert Spencer and Mr. Henry Longueville Mansel. By applying the notion of the species, ideas that are not appearances—inapparitional ideas,—I dare believe that I have precipitated the confusion which gave plausibility to the doctrine. An error which confounded Essence with Quality I have corrected.

The confusion of Will with intentional-instinct overcasts psychology, ethics, and morality. A mental act which differs from attention only in the respect that it persists in a mind which would fain be rid of it, was confounded with attention, to which it is essential to depend upon conscious effort,—effort that the agent is free to suspend at pleasure. The delusion which Nature puts upon us in connection with this counterfeit of attention, viz. that it is a volition,—that, in respect of it, we are free agents—exemplifies a delusion commensurate with nearly the whole of the practical life of mankind. The removal of the error (Bk. III.) exposes a fact of tremendous importance. Proving deductively that Mind includes an unconscious part, the theatre of unconscious mental events, and inductively, that this part includes or is comprised by the brain, and that an unconscious mental event—a corporo-mental event—is a condition

sine qua non of a consciousness, I show that *nearly the whole of the practical life of man is, has been, and, for an indefinite time to come, threatens to be, transacted by an unconscious force or agent,—that we have been puppets, not personal agents—dupes as well as puppets—and, in view of the prevalence of wretchedness in human life, victims.* I show that from this state of puppet, dupe, and victim, there is but one way of escape, that of self-denying conduct according to Wisdom. If, adopting an ideal of character opposed to his instincts, a man resolve to live in conformity with that ideal, and at cost of self-denial live accordingly, his practical life is initiated and controlled by his conscious mind, and is truly a personal life. In respect of it, he is voluntary,—a free-agent. He is master of himself, and, to a certain extent, of Nature. If this practice have, as Christianity presumes it to have, the property of altering the instincts with enhancement, the agent is in the way of terminating the conflict between Will and Instinct, by substituting a new man for the old,—in the new, a mind that is partly the offspring of the will. What a salvation had Christianity elicited such a purgatory from the will of Christendom!

Having exposed what was false in the connotation of the term Substance, I employ the term as denoting according to the true part of its connotation, *i.e.* as denoting the naturally ungenerable and unannihilable part of the universe, what may be termed its perdurable part,—that which, in changing, remains always intrinsically the same—the truly *fundamental* part of the *τὸ πᾶν*. I show that substance is the subject of an attribute in virtue of which it is sometimes mind, and for the most part, an equivalent of mind. This attribute I term *orderly concurrence of aptitudes,* dis-

tinguishing it from a species that has been quite overlooked, viz. disorderly concurrence of aptitudes, or that which causes disorder. To the former is due the Cosmic character of the universe; to the latter Chaos. Orderly concurrence of aptitudes is the ground of natural theology. During a certain phase of mental development, a law of belief gives it as presupposing a Designer—an intelligent first cause. I show that scrutiny strips the datum of the speciousness that made it seem to be a necessary truth.

I exhibit in a new light the relation of Deduction to syllogism. The exhibition exposes two kinds of laws of belief, one relative to necessary truth, the other bearing on induction: it shows that there are exponents of laws of belief, and that the exponents of the laws relative to necessary truth are axioms, whereas those of the other kind are scarcely truthlike. It shows that syllogism has, if any, a merely fanciful connection with non-deductive inference.

I prove that all knowledge is the offspring of experience—that there is no such thing as knowledge *à priori*,—that, nevertheless, in the controversy about the relation of knowledge to experience, the advocates of knowledge *à priori* have the best of it. As regards that controversy, my rôle is eclectic. It is the same as regards the question between Conceptualists and Nominalists. I show that both are partially right and partially wrong, that there are no such things as Abstract Ideas, and that there *are* such things as concepts: the vicarious function of names, whereby they serve in place of ideas, has made them pass for abstract ideas.

Philosophy has been obstructed by the begging of vexed questions involved in the connotations of many

of its most important terms, *e.g.* the begging of the question at issue between idealists and materialists when the term Sensation is understood to connote relation as attribute to a material subject—a body. The idealist denies that there is such a thing as a body or a bodily organ of the consciousness termed sensation. I define sensation, consciousness given as being either wholly or in part a bodily attribute. This definition does not imply that there is such a thing as a body: it does not imply that the connoted datum is true. It makes the term defined equally convenient to every school of philosophy. In all my fundamental definitions I eschew in like manner assumption and *petitio principii.* I draw my principal general lines within the pale of the records of consciousness visible to retrospect. This domain exhibits to retrospect, not merely records of the simplest units, but also records of groups of consciousnesses determined by the mutual likeness of the units and their difference from all other units. Our ideas of kinds of consciousness originate in discernments of these groups, *e.g.* the groups, visual consciousnesses, auditory consciousnesses, remembrances, judgments, inferences, imaginations, etc. Of the kinds thus manifest to retrospect, I select those that seem to be the divisions of the domain of consciousness the demarcation of which facilitates in the greatest degree an exhaustive survey of the field,—first the subgenera, then the species, defining or otherwise indicating them by what is *intrinsic* to them in respect of which they resemble, or differ from, one another. This classification, which excludes *petitio principii,* I make the foundation of psychology. If it be not a *terra firma,* there is no footing for knowledge. This *terra firma* seems to be connected by data, including axioms, with

a reality outside consciousness, a reality known as the not-self. I take for granted the veracity of data that are not tainted by inconsistency, and, moving upon them with the confidence of Common Sense, intuitively and inferentially explore what I take to be unconscious reality. Thus I discover the existence of unconscious mental event, and that Mind includes an unconscious part. Accepting from the datum that there is such a thing as matter, that there are such things as Cosmos, human bodies, bodily organs of consciousness, *e.g.* the eye, ear, etc., and inductively inferring that what are given as nerves, spinal marrow, and encephalon, are also organs of consciousness, I fall in with the confluence of physiology and psychology, and allow that mental events include physiological processes.

II.

The author is a disciple of the school of common sense. The spirit of the school has suggested to him a method which has steered him to some of the most important of the conclusions of this treatise. What then is common sense, and what its method in philosophy? Common sense is *the mental quality which disposes the bulk of men to unanimity under like circumstances, and to conservatism in respect of the actual system of their beliefs.* The conservatism tends, not only to be tenacious of actual beliefs, but also to mould all accessions to belief. Our actual beliefs dispose, as a rule, to judge in accordance with them, inclining our minds towards certain hypotheses and away from others—a disposition, by the way, that

manifests itself without any conscious reference to beliefs with which an hypothesis in question may agree or disagree. The accordant hypotheses, when candidates for belief, present a verisimilar aspect, and the discordant an inverisimilar one, without exhibiting agreement or disagreement with any actual belief. Conservatism in respect of belief is not proper to those who are qualified by common sense: a considerable minority of the conservative are of an eccentric mental structure, which causes them to differ notably from the majority as to system of belief. These and those who are devoid of conservatism as to belief are either partially or altogether devoid of common sense. People who, in relation to certain topics, are eccentric, are sometimes, in respect of all others, the reverse. The verdicts of common sense are *sentiments* so differentiated from all other kinds of sentiment save one that, except in so far as they are liable to be confounded with sentiments of that kind, they are easily recognizable. For example, they are readily distinguished from approvals and disapprovals of the religious, moral, and æsthetic faculties, and from assents and dissents of Reason in which common sense does not concur, and to which it does not demur. The sentiments with which they are liable to be confounded are those that constitute the assent and dissent of eccentric conservatism. These seem to the subject to be verdicts of common sense, from which indeed they are not distinguishable by any intuitable intrinsic difference. If they were, since it is presumable that common sense is a better guide than eccentricity, we should be better equipped for the voyage of life, and especially for the conduct of philosophy. It has been well said of common sense that it is a ballast which, although it keep the ship aground in

shallow water, is indispensable for keeping her upright where there is depth enough to float. Hume experienced the correcting influence of common sense when he found that he could not take his scepticism abroad with him.

When I treat of Science (Chapter I. Book III.) I shall show that, according to the signification to which the term Philosophy has been narrowed within the last forty years, philosophy is the motherlye of science, —at least of theoretic science, and that *satisfactoriness to common sense* is the attribute which differentiates theoretic science from philosophy. So long as the products of philosophy do not justify themselves by evidence satisfactory to common sense they are not science nor constituents of science; but in acquiring that evidence they undergo the crystallizing process which makes them either one or the other. Metaphysics is an example of a product of philosophy that has failed to satisfy common sense, and is therefore excommunicated by science. Positivism is a revolt of common sense against metaphysics as well as theology. Psychology is not, like metaphysics, an offence to common sense: it is even a favourite candidate for admission to the rank of science; but it has not yet exhibited satisfactory credentials to common sense. Sociology is still in the liquid state, but manifestly about to crystallize. So much for common sense: let us now consider its method as pilot of philosophic speculation.

Philosophic speculation aims at two things, viz. knowledge of facts, and the elimination of inconsistency from the system of our beliefs. As regards the elimination, we should not hug the coast of certitude, but boldly put to sea in quest of a system of hypotheses

in harmony with facts and with each other, not fearing to provisionally adopt, as favourite candidates for belief, hypotheses which, although otherwise well recommended, do not capture certitude. If the speculation achieve a system of hypotheses perfectly explanatory of a vast multitude of facts and in harmony with one another, the system, owing to a well-known mental law, would compel certitude of its truth. The explorer starts on the voyage equipped with a system of beliefs and with common sense which serves him, not only as ballast, but, in connection with his beliefs, as compass; for, besides saving him from dangerous careening, it indicates the direction he should take, viz., along the line of consistent hypotheses that most accord with his beliefs and in the least degree innovate upon the system of those beliefs. For example, if two *data* be inconsistent with one another, he is to prefer that the elimination of which would cause the greater change in the system of his beliefs. Of course common sense is tenacious of all *data* that are not discredited by inconsistency, but, above all, of those that serve as foundations of morality and religion, *e.g.*, that there is a soul, that we are free agents. When such *data* become doubtful, the moral and religious faculties unite in a challenge to Will to prevent doubt from causing the moral paralysis and decay that might be inevitable if certitude of the falseness of the datum were in place of doubt. They suggest to Will to apply what was known to the Latins under the name *arbitrium*,—an act which founds resolve on mere opinion, an act indispensable to those who have to navigate a sea of conjecture. Decree, they exclaim, the truth of the questionable datum, and, as regards conduct, rely on it as though it were the certitude it substitutes. Man-

liness, it seems to me, concurs with morality, religion, and common sense, in this challenge. How should it indolently "gape on" while doubt is undermining human dignity? Considering the fallibility of the human mind, its dependence on data, the necessity it is under to proceed upon conjecture, the superiority of a limited conservatism to an unballasted proneness to novelty in the interpretation of nature, and the probable degradation of the race if it lose faith in free agency and responsibility, it seems to me that the foregoing method is recommended by transcendent credentials.

The method repudiates the doctrine that virtue is an impediment to research—an impediment as indisposing the mind to beliefs that are hostile to it: the method proceeds on faith that virtue or wisdom is a faculty as needful to research as that of vision, though also as fallible. It is true that, if men be no better than maggots, the discovery of that truth by research under the tutelage of Wisdom risks postponement; but is the postponement a respite or a loss? Morals at least would not be the worse for it. The tendency of the method to prevent research from bolting is elucidated by the extravagance of the doctrine, that human behaviour is exclusively automatic—that consciousness has no more to do with it than the whistle of the locomotive with its motion. All that can be said for this doctrine is that it is not inconsistent, and that it is competent to molecular change to cause behaviour which seems to be intentional. To infer from the facts which indicate this competence that man is a mere automaton, is a *non sequitur*. The method puts the doctrine out of court.

III.

It is new, even to philosophy, that exploration and discovery are possible to the faculty of Definition. It is taken for granted that the office of the faculty is confined to the humble work of making knowledge ship-shape, and explaining the meaning of words,—that he, for example, who achieves a definition of Induction has not augmented—has merely arranged—knowledge. The obvious agreement of definitions with the known tends, when they augment knowledge, to hide the appearance of increase. The detection of a *differentia* is an increase of knowledge, and often an increase of the greatest importance; but, though this must be manifest to the discoverer, it tends to elude those to whom he imparts his discovery: they think that they have profited only by having their knowledge put for them in a clearer light. An analogous error disputed Bacon's title to be the originator of an intellectual epoch. Forsooth, people had inferred inductively prior to Bacon, and therefore the *Novum Organum* contained nothing new. It has escaped philosophers that the faculty of definition was the supreme faculty of Socrates, and that his dialectic was a method of driving people to the border of definition which was to enrich the world with new knowledge. Now in this Essay error is sapped and truth put in its place by a noiseless process of definition that tends to exclude an appearance of addition to knowledge. I might easily seem to have done no more than decant the known into another form. It is important, no less to the reader than to myself, that this error be avoided.

IV.

The treatise consists of three books. The First consists of Definitions demanded by a new classification of mental events and faculties—not the less new that the classes are denoted by familiar names. The Second treats of Reasoning. The Third consists of expositions which concur in showing the dependence of personal agency on Self-Denial. The first chapter of the third book shows that science is unconscious knowledge. The second deduces from familiar mental event the existence of an unconscious part of the mind and of unconscious mental event. The third proves that the unconscious part of the mind is corporal, consisting of the encephalon, etc. The fourth is an exposition of Wisdom. The fifth proves that man has been for the most part puppet, dupe, and victim of unconscious forces, and that self-denying conduct is a *sine qua non* of escape. It may be asked,—at this hour of the day, so long after Leibnitz had called attention to unconscious mental event, and Dr. Carpenter had popularized knowledge of unconscious cerebration,—what need was there of a deduction of an unconscious part of the mind and of unconscious mental event? I answer that, except as regards the insignificant species of unconscious event noticed by Leibnitz, it has never been shown that there are unconscious mental events. It has been abundantly shown that certain unconscious events are conditions *sine qua non*, and otherwise accessories, of mental action, but never hitherto that mental events include other unconscious events than those indicated by Leibnitz. No one will suspect

Professor Bain of overlooking the bearing of corporal upon mental event, yet his definition of Mind supposes mental event to exclude unconscious event. According to Professor Bain Mind is a sum of operations and appearances that are either feelings, volitions, or thoughts.[1] Even Mr. Lewes, who held that event of which the obverse aspect belongs to the kind, mental events, has a reverse aspect which correctly ranks it, as being a neural tremor, in the kind, corporal events,

[1] "The operations and appearances that constitute Mind are indicated by such terms as Feeling, Thought, Memory, Reason, Conscience, Imagination, Will, Passions, Affections, Taste. But the Definition of Mind aspires to comprehend in few words, by some apt generalisation, the whole kindred of mental facts, and to exclude everything of a foreign character."

"Mind is commonly opposed to Matter, but more correctly to the External World. These two opposites define each other. To know one is to know both. The External, or Object, World is distinguished by the property called Extension, which pertains both to resisting Matter, and to unresisting, or empty Space. The Internal, or the Subject, world is our experience of everything not extended; it is neither Matter nor Space. A tree, which possesses extension, is a part of the object world; a pleasure, a volition, a thought, are facts of the subject world, or of mind proper.

"Thus Mind is defined, in the first instance, by the method of contrast, or as a remainder arising from subtracting the External World from the totality of existence. It happens that the External World is easily defined or circumscribed; the one well-understood property, Extension, serves for this purpose. Hence the alternative, or the correlative, Mind, can be circumscribed with equal exactness. But it is desirable to possess, in addition to this negative definition, however precise it may be, a positive definition, or a specification of the quality or qualities that appertain to the phenomena designated mind. Now, we have not here the good fortune to be able to refer to a single precise quality, like Extension for the object world; we must refer to several qualities that conspire to make up our mental framework. Hence our positive definition, instead of being a unity, is a plurality, and is not only a Definition, but also a Division of the Mind."

"The phenomena of the Inextended Mind are usually comprehended under three heads:"—

"I. Feeling, which includes, but is not exhausted by, our pleasures

inadvertently implies that unconscious event is not mental. But, though it had been inductively shown, the scientific spirit would exact a corresponding deduction if the latter were possible; not indeed in these days when induction is celebrating its prodigious successes in an orgie, but so soon as Philip shall have become sober.

This treatise purports—1st, a reconstruction of psychology; 2nd, exposure of the alternative that gives the treatise its title. The alternative is this—either puppet, dupe, and victim of unconscious forces, or self-denying conduct for the achievement of Wisdom. Although the work of reconstruction occupies nearly the whole of the treatise, and, if it bear any fair proportion to the labour bestowed upon it, should not be

and pains. Emotion, passion, affection, sentiment—are names of Feeling."

"II. Volition, or the Will, embracing the whole of our activity as directed by our feelings."

"III. Thought, Intellect, or Cognition.

Our Sensations, as will be afterwards seen, come partly under Feeling, and partly under Thought."—*The Senses and The Intellect.*

Does Professor Bain advertently imply in the term, inextended mind, that there is such a thing as extended mind? If he do and intend us to understand that extended mind is a bodily organ of which inextended mind is a function, are we also to understand him as teaching that mental event does not exclude unconscious event? No; for he limits inextended mind to the conscious events, feeling, volition, and thought.

A better instance of the intoxication of the scientific spirit by the successes of the inductive faculty than the foregoing extract could scarcely be found. It tells us—1st, That operations and appearances constitute the mind; 2nd, That mind is a species of experience, viz. experience of the inextended; 3rd, That it is the totality of Being minus extended things; and then it implies (I believe inadvertently) that a species of mind is extended. In the old days, before induction had kicked over the traces, Professor Bain, by whose valuable contributions to philosophy I have profited, would not have thought and written thus.

unworthy of the attention of psychologists, it is, in respect of the exposure, a mere husk. My intention in laying bare the abjectness and wretchedness of our condition coincides with that of the Gospel without its supernaturalism and mysticism. It is to stir an insurrection against the Infernal in Nature, for the subversion of the reign of Instinct and substitution of that of Wisdom and Will.

BOOK I.—DEFINITIONS.

CHAPTER I.

CONSCIOUSNESS.

I.

ACCORDING to the primary meaning of the word *perceive,* one perceives not only when he sees, hears, smells, tastes, and undergoes tactile consciousness, but also when he imagines, remembers, conceives, judges, apprehends danger in an emotion of fear or sacredness in one of reverence. According to this signification and the corresponding one of the cognate term, perception, the latter denotes the affection of mind that is correlated to objectivity,—the mind's embrace of an object. Philosophers have in modern times assigned a narrower signification to the term, perception. Convenience demands another alteration of its meaning, opposing it, as I shall presently explain, to what Leibnitz terms apperception. Accordingly, stripping the word *discernment* of its connotation of contrast, I assign to it the meaning originally annexed to the term, perception. Discernment and objectivity are correlatives, and perception is a species of discernment. This arrangement is facilitated by the fact that the term, discrimination, has been a synonym of, and can do duty for, the term discernment.

II.

According to its primary signification the term *object* denotes what is discerned. Custom has impaired its utility by making it a synonym of the term, Thing. I employ it as though this abuse had not obtained. A discerned tree is, and an undiscerned tree is not, an object. Discernment and object, like concavity and convexity, are but opposite aspects of the same thing.

III.

Certain objects, *e.g. muscæ volitantes*, Ariel, or Falstaff, are said to be *unreal*, others, as Mount Atlas, *real*. When we contrast a pain with an idea of a pain the contrast lights up the reality of the former and the unreality of the latter, and the reality of all sensation, emotion, and volition, is, in like manner, put in relief when contrasted with the ideas of them. The ideas are mere objects; the sensations, emotions, and volitions, are something more than objects. It is in virtue of the something-more that they are realities. Accordingly, Reality may be defined, *entity that comprises something more than objectivity.*

IV.

According to Pythagoras, and after him Plato, *idea* is the common name of Types eternally existent in the

mind of God,—types conformably to which all contingent things were made. The meaning of the term was altered by popular misunderstanding and license so that Locke could apply it as the common name of objects. Thus understood, a stone, when object, and a toothache, are ideas. Locke did not intend this inordinate extent of signification. His definition extended it to real objects, but it is probable that he had only unreal objects in view. I believe that I am representing the popular and philosophical understanding of the term in defining it as being the common name of unreal objects not given as real. According to this definition the immediate objects of sight, hearing, taste, smell, and tactile discernment, are not *ideas.*

V.

Self-consciousness is the objectivity of an individual to himself. It is therefore a mistake to oppose subjective consciousness to objectivity: it is a species of objectivity. Objectivity is either subjective or non-subjective; in other words, objects are either *subjective* or *non-subjective.* What has been accounted opposition of subjective and objective consciousness is really opposition of subjective and non-subjective objectivity. Every normal discernment of which the object comprises all that is objective at any one instant is discernment of a subjective *and* a non-subjective object, the former comprising what is given as self or the Ego and its appurtenances or modifications, the latter the not-self, the non-moi, the non-Ego. Such a discernment, accordingly, consists of two constituents, one known as

self-consciousness, and by Leibnitz more conveniently termed Apperception,[1] the other what refers to the opposed object. The constituent that refers to self and its modifications I term *apperception*, and the other, *perception*. It is now obvious that I am conservative as regards the meaning of the term, perception, and that my innovation affects only the import of the term, discernment.

VI.

One may make himself the object of his own attention. Self, as object of its own attention, is not a subjective object. When object of attention it is doubly objective, non-subjectively to the attentive discernment and subjectively to an inattentive one. Make the experiment. Attend to the Ego. The attentive discernment is involved with an inattentive discernment of self as subject of the attention. You attentively perceive self, and inattentively discern (apperceive) self as subject of the attention. This gives us the *differentia* of apperception, viz., inattentiveness of discernment of what are given as self and its modifications. Accordingly, Apperception is *discernment that is inattentively referent to what are given as self and its modifications*, and Perception is *discernment of a non-subjective object*.

[1] Philosophy is indebted to Leibnitz for the term *apperception*. What he employs it to denote he defines, in contrast to perception, as follows,—"Perception is the internal state of the monad symbolic of things external, and apperception is the reflex knowledge of this interior state—a state not given to all souls nor at all times to the same soul."

VII.

Let perception involved in seeing, hearing, tasting, smelling, and undergoing tactile consciousness, be termed *sense-perception.*

VIII.

Is there such a thing as discernment *without* apperception? Yes: there is a species of abnormal discernment of which privation of apperception is the *differentia.* What sometimes occurs to patients suffering acute pain during sleep is an instance. They sometimes lose self-consciousness during sleep without getting relief. The pain persists. It is given to the memory of the sufferer as a thing that exists *per se* and as though nothing else existed save time and space. It involves no reference to an Ego given as being its subject. Here we have discernment without discernment of a person discerning,—a perception unconjoined with an apperception. Ecstasy gives us examples of discernment to which the Ego is not objective. Wordsworth's description of an event of this kind in the Excursion is a fiction modelled on fact. Eothen tells us that he experienced "a vegetable sense of cold," meaning, I take it, cold given, not as an attribute of a body annexed to an Ego, but as self-subsistent. The following mental event was given to the writer as having occurred while he was in a swoon. A discernment void of self-consciousness seemed to have for object a figure consisting of several luminous variously-coloured concentric rings,

the largest about twelve feet in diameter. Time, space, and the figure, seemed to comprise all being. There was no spectator. After a while an impersonal wonder contemplating the figure obtained, and then, after a while, "I" was suddenly annexed to the wonder as subject to attribute: for a moment I was aware of myself as gazing at the figure, and with the vanishing of the figure I recovered.[1]

IX.

Subjective objectivity includes the body of the subject and certain of its states and changes. In every normal discernment embracing all that is at the time objective, the subject apperceives his body. In sense-perception he apperceives the perceiving organ, *e.g.* in seeing he apperceives the eye. We apperceive the expressions of our faces, the attitudes and motions of our bodies. One of the profoundest errors of philosophy is the assumption that self-consciousness is cognisant of nothing more than self given as subject of consciousness, and of varieties of consciousness which it undergoes, *e.g.* remembrance, imagination, judgment, emotion. The assumption begs a momentous question, viz., that self is given as being a soul,

[1] Comte reproaches psychology with a defect that is incident to its infancy and adolescence, namely, inattention to abnormal mental event. The reproach was ill-timed, for psychology was even then approaching a confluence with physiology and morbid pathology. What advantage it derives from the connection is instanced in the text. Those who imagine that psychology should not stoop to gather its facts from hospitals, lunatic asylums, and generally from the exceptional, will do well to consider the reproach of Comte.

i.e., as being inextended and a monad. It is highly probable that the idea of an *inextended* subject of consciousness, a soul, is a product of philosophy, derived from the datum, that self is a durable thing, and from evidence that the body is a mere series void of a temporal identity measuring what is given as the lifetime of the putative subject. It is probable that, in the infancy of human individuals and societies, the body is given as being the self. This datum easily maintains its ground so long as consciousness is all but absorbed in sensation, but is less tenacious in proportion as consciousness is more engaged in discourse. When the idea of an inextended self emerges, it is favoured by the ascendancy of discourse.

X.

1. To what known and named kind are we to assign the mental event, discernment-unconnected-with-apperception? Known and named kinds afford it no room. It has been overlooked by philosophy as well as by popular experience. The kind with which it has most affinity is what has been hitherto denoted by the name, consciousness. But before deciding to treat it as a congener of this kind and to transfer the name Consciousness to the genus of which they are species, let us consider another ignored kind of mental event which is also a candidate for admission into the genus. The following are instances of the kind.

2. If where the light is subdued a man inadvertently close his eyelids for some seconds and be

then asked whether he sees anything, the question would develope an erroneous knowledge in him that he sees nothing. If, while the lids are closed, he cover them with his hand, he deepens the darkness, which establishes that, between the closing of the lids and the covering with the hand, his visual faculty had been the theatre of an event or entity, that is better entitled to the name, light, than the æthereal vibrations of which it is an effect. This ignored event pretends to be a consciousness.

3. Relief sometimes discovers to us that we have been undergoing a mental event which, if it be not entitled to the name, pain, is nameless. The drawing of a blind shuts out a glare, the closing of a door a noise, that had been ignored, and so affects us that a sigh or groan of relief escapes us. The fact that the event was ignored does not make us indifferent to its recurrence.

4. We see in others, and they see in us, signs that are given as signs of emotion, when the putative subject is ignorant that he is undergoing the emotion ascribed to him. How often does resentment shoot its arrows at us when the subject believes himself not only to be free from anger but to be actuated by regard for our interest or by pious zeal. We frequently discern emotion in ourselves which is given as having had a latent beginning and growth. People of conduct are led by their vigilance to the discovery of kinds of emotion that never manifest themselves in vulgar experience. It achieves what is known in mystical language as discernment of spirits. The discovery penetrates even to emotions, which, when discerned, are found to

be the conscious sides—the faces or appearances—of states of the heart that are moulds of emotion, states of which "mood" is the common name. For example, one comes to detect an emotion that signifies a tendency to anger at a time when the heart is altogether free from anger,—nay is disposed to mirth, although with a tincture of irony. Or one may detect an emotion significant of a mood that is a mould of low and trivial sentiment. The discerned events are given as being emotions,—emotions that existed antecedently to, as well as at the time of, the discovery. If the datum be true, if the events be indeed what they seem to be, are they not Consciousness of which the subject is ignorant?

5. There is a mental event connected with exercises of memory which presents a claim equal to that of sensation and emotion to be accounted consciousness, and it refers to latent individuals of its species which, having a like claim to be classed as consciousnesses, are adducible as instances of latent consciousness. When we endeavour to remember, the effort proceeds upon a mental event that more resembles sensation than any other familiar species, a somewhat that intensifies and loses intensity, enhancing in proportion as it intensifies our consciousness of power to recall, and degrading it in proportion as it loses intensity. It culminates, so to speak, in the remembrance which it predicts, and, if it expire without having caused remembrance, we feel that it is impossible to recollect; we have lost the clue. To those who notice the clue it is impossible to doubt that all effort to remember proceeds on such an event or such all but the "illatency." Analogous events, only more resembling emo-

tion than sensation, move men to undertakings for which they previously felt no disposition, no courage, no aptitude. It fills them with consciousness of power to realise such or such an end, and for the most part truly. The mathematician feels that it is in him to solve the problem by which he has been perplexed: it is the Muse of the poet, the painter, the musical composer. When it is noticed it is given as being the like, save as to being known, of mental events that have always borne on human enterprise. It is surprising that a mental event of so low an order should be, as it were, the matrix of the highest intellectual exercise and success. If it be not ranked as consciousness our system of kinds has no room for it, and, if it be, it establishes the existence of latent consciousness.

6. I make free to transfer the name *consciousness* from the kind discernment-involving-apperception, by which the name has been hitherto monopolised, to the genus of which that kind, and the kind, discernment-unconnected-with-apperception, and the kind instanced by the ignored light and pain, are species. The innovation exposes a genus hitherto unknown, and is innocent of any greater infringement than the transfer of a name from a species to its genus. I was shut in to the alternative of inventing for the genus a new name or transferring to it that of one of its species. The aversion of the mind to new names I deem a sufficient apology for my choice. It was impossible to avoid a shock to mental habit. I trust it will be found that I have avoided the greater violence.

7. The enlargement of the signification of the term, *consciousness*, makes it the common name of such

mental events as ideas, perceptions, apperceptions, remembrances, imaginations, judgments, speculations, sensations, emotions, intentions, and choice or volition properly so called. The term consciousness admits of the indefinite article before it and of the plural form. A volition, an idea, or a perception, is *a* consciousness, and the three are consciousness*es*.

XI.

1. Discernment unconnected with apperception, and such latent consciousnesses as the ignored light and pain, have this in common, that, considered as consciousnesses, they seem to be incomplete. Consciousness accordingly is divisible into *complete* and *incomplete* consciousness. The former consists of Apperception and all apperceived consciousnesses, the latter of all unapperceived consciousnesses.

2. An incomplete consciousness that obtains in a self-conscious mind, *e.g.* ignored light and pain, may be distinguished as *normal;* one that obtains in a mind void of self-consciousness, *e.g.* pain without self-consciousness, as *abnormal*.

XII.

Discernments that involve apperception may be distinguished as apperceptive, all others as inapperceptive. These distinctions afford us convenient terms. They enable us to put briefly and plainly what was

not previously expressible without circumlocution and obscurity, viz. that hitherto apperceptive discernment has monopolised the name, consciousness, and that the name now denotes the genus of which apperceptive discernment, inapperceptive discernment, and ignored complete consciousness, are species.[1]

XIII.

1. I have now to explain what I understand by the terms *distinctness* and *indistinctness*. They denote undefinable attributes of objects. When a tree is an object of visual perception and attention it is a distinct object, and its qualities, *e.g.* its solidity, colour, form, etc., are indistinct objects. When a grove is an object of visual perception and attention it is a distinct object, and those of its trees that are nearest to the centre of the field of vision may, if not too remote, be distinct objects. In the second case, the trees near to the circumference of the field of vision may be indis-

[1] The advantage of restoring the term, consciousness, to the larger signification from which it was warped by philosophy, is evinced by the misnomer, "unconscious feeling," employed by the late Mr. Lewes. According to the popular and better understanding of the terms, consciousness and feeling, feeling is a species of consciousness, so that the term "unconscious feeling" affects common sense with the shock of contradiction. The term Feeling has been popularly applied as denoting emotion and sensation; but when philosophy detects the species, ignored or latent consciousness, that species tends to fall under the sub-genus, feeling. Latent consciousness is what Mr. Lewes misnamed unconscious feeling. Not Mr. Lewes, but philosophy, is responsible for the misnomer. The kind of consciousness which it denotes is never absent from the waking mind, and probably comprises what there is of consciousness in the lowest animals.

tinct. The qualities of a tree that is an indistinct object are more indistinct than those of a tree that is distinct. Of distinct objects those that are objects of attention are more distinct than those that are not. Thus we see that there are degrees of distinctness and of indistinctness. It is essential to the object of attention to be distinct, but objects of inattentive discernment are not necessarily indistinct.

2. Indistinctness supposes objectivity. What is not an object cannot be indistinct.

3. There are two well-marked degrees of indistinctness, viz., that which does, and that which does not, exclude knowledge of the indistinct object. The indistinctness of normal inchoate consciousness, *e.g.* the ignored light, is an example of indistinctness that excludes knowledge of the object. Let indistinctness of this degree be distinguished as *abditive.* The indistinctness of objects near the circumference of the field of vision is an example of the kind that does not exclude knowledge. Let it be distinguished as *inabditive.*

4. Distinctness graduates, through instances, into inabditive indistinctness, and the latter into abditive indistinctness, as neighbour colours of the rainbow graduate one into the other, equally excluding a detection of boundary and doubt of the existence of specific difference. For example, the graduation excludes the possibility of ascertaining a minimum of distance from the centre of the field of vision beyond which a thing that, within the distance, would be distinct, is indistinct.

CHAPTER II.

KNOWLEDGE.

XIV.

In order to explain what is denoted by the term, Knowledge, I must take a liberty with the term, *thesis*, assigning to it a partially new meaning. I trust that the importance of the new signification, to which no other known term is, by its connotation, so well adapted, will be found a sufficient apology. I employ the term, thesis, as denoting a thing which, when objective, is verbally expressible by a proposition and not otherwise. Imagine yourself seeing at a distance a person who so affects your faculty of identification as to beget in you a faint opinion that he is your father, imagine that the opinion alternates for a time with the opposite opinion until, getting near to the object, you become certain that it is your father. The objects of the fluctuating opinions and of the certitude which finally supplants them are not propositions. No verbal formula is on such occasions objective; and a proposition is a verbal formula. But an object such as it is the nature of a proposition to express, one exhibiting the aspect of probability, must be present to each of the opinions; to the affirmative opinion an object cor-

responding to the proposition, The person I see is my father, to the negative one an object corresponding to the proposition, The person I see is not my father; and a third kind of object must be present to the final certitude, viz., one corresponding to the proposition, The person I see is my father, but exhibiting the aspect of certainty instead of that of probability. Now these several objects are ideas intimately connected with the immediate object of the perception,—ideas which it is important to distinguish from that object. It is important to distinguish them from propositions as not being verbal, and, as being ideas, from the immediate object of perception.

XV.

The correlatives, *certainty* and *certitude*, are undefinable. The former is an attribute and aspect of a thesis, the latter an attribute of a mind to which the former is objective; in other words, when a thesis exhibits the aspect, certainty, the corresponding discernment involves the attribute, certitude. Certainty and certitude refer to truth,—to the truth of the thesis which they suppose. The correlation of certainty to certitude supposes that there is no such thing as absolute certainty.

XVI.

We are said to *know* what is not altogether strange to our minds, *e.g.* the name, John, the figment of fancy,

Ariel, a song, an art, and also to know what we are certain of, *e.g.* the truth of the thesis, Two and two are four. If the relation of mind to what is not altogether strange to it be knowledge, knowledge is a genus comprised by the two species, knowledge that does, and knowledge that does not, suppose certitude. So far as I know, philosophy has ignored the genus and regarded knowledge as supposing certitude. This I presume has been an inadvertence, and I therefore adopt the popular view, according to which knowledge is mental relation to what is not altogether strange. Knowledge that supposes certitude I distinguish as "*certive*," and the opposite as "*non-certive*."

XVII.

Knowledge is either conscious or unconscious, the former when the thing known is objective, otherwise the latter. The mathematician's knowledge of mathematics subsists when he is in dreamless sleep. A man is not necessarily nor always ignorant of what he is not thinking about, and what he is not ignorant of, though he be not thinking of it, he knows. Popular language implies the existence of unconscious knowledge. In conformity with it I presume to disregard the dictum of Hamilton, "consciousness and knowledge each involves the other." But though consciousness be not essential to knowledge, it is essential to certitude and certainty. These determine knowledge, but are not commensurate with it in time: they necessarily obtain, but obtain only when the knowledge they determine is conscious.

XVIII.

1. There is a kind of mental affection of which tendency - to - become - knowledge is the *differentia.* For example,—the painful experience of the burned child begets a mental affection to the thesis, All things like that which burned me have a burning property, an affection involving a tendency to become knowledge. If the experience occur before the child has acquired the idea of the kind, luminous things like that which burned him, it is not a knowledge, but, to become knowledge, it only needs that experience beget knowledge of the kind. Again, every man has a native or congenital affection to the general thesis, A whole is greater than its part, and this affection precedes knowledge of the kind, Wholes. It is not then a knowledge. To become a knowledge it is necessary that experience connect with it a knowledge of the kind, wholes. These affections, as being affections to theses in virtue of which the theses tend to assume the aspect of certainty, may be distinguished as "thesic." Let us denote by the name *cognitive complement* the knowledge needful to convert a *thesic affection* into a knowledge. According to this analysis a "certive" knowledge is a "thesic" affection conjoined with its cognitive complement.

2. Thesic affections are either complete or incomplete, the former when they are, the latter when they are not, knowledges. Incomplete thesic affections are divisible into those that lack nothing to make them complete, but their cognitive complements, and those that lack something more. Before the child is burned

he is the subject of a mental affection which the burning develops into the incomplete "thesic" affection to which I have referred. The former is so to speak an embryo of the latter: it is an affection to the thesis to which the latter is related, and is therefore a "thesic" affection. But it lacks something more than cognition of a cognitive complement to make it a constituent of a knowledge. It lacks the painful experience. Let incomplete "thesic" affections that lack nothing of completeness but their respective cognitive complements be distinguished as *proximate,* and all others as *non-proximate.*

3. Proximate thesic affections are either native or acquired. Those that relate to axioms are native, all others are acquired. From this point of view it is obvious that geometrical axioms afford no ground for the theory of knowledge *à priori.*

XIX.

Knowledge does not suppose the truth of what is known. If it did, man would be infallible. There is a false as well as a true knowledge.

XX.

1. With a view to the exposition of two opposed species of knowledge, viz. guaranteed and unguaranteed

knowledge, I have to make some explanations respecting Necessity and consistency.

2. *Necessity* is undefinable. It is an attribute, *e.g.* an attribute of the existence of the first cause, and, if realities correspond to the ideas of time and space, of the existence of time and space. Necessity has been incorrectly opposed to contingency. Contingency is the *differentia* of event and of what depends upon event, of beginnings and of what begins or can be supposed to have begun. But necessity is an attribute of contingent as well as of non-contingent things, for example of the existence of the Ego, or of the equality to one another of contingent things that are equal to the same, *e.g.* that of two gold rings that are equal to a third. The contingency of the rings supposes that of their equality; the equality is necessary as well as contingent. Necessity accordingly is divisible into contingent and absolute necessity. The necessity that is an attribute of the equality of contingent things equal to the same is an example of contingent necessity; that which attaches to the existence of the first cause or beginningless substance exemplifies absolute necessity.

3. It is important to distinguish between necessity and a *seeming of necessity*. According to experience a seeming of necessity is not always true. Before science ascertains the relativity of the "up and down" of space, it seems to be a necessary attribute of space,—the thesis, Space involves an "up and down," seems to be a necessary truth. Before weight is discovered to be gravitation and while yet it seems to be a necessary truth that space involves an "up and down," the thesis, Falling is the alternative of support, seems to be

a necessary truth. Now, in so far as the mind is conversant about what is given as being necessary, it is restricted to seeming of necessity, and, since the seeming may be false, (and we have no test by which to distinguish true from false seemings of necessity) Reason finds itself without the perfect security which intuition of the necessary seemed to have afforded. We are fallible as regards what is given as being necessary truth.

4. Fire exhibits a seeming of necessity to burn, which, when contrasted with the seeming of necessity to be true presented by axioms, shows a defect that is fitly connoted by the name, incomplete seeming of necessity. I accordingly divide seemings of necessity into complete and incomplete. Necessity to cause of which the seeming is incomplete is an attribute of Nature—an attribute of all secondary causes. All axioms and all theses of which the truth is demonstrable exhibit a complete seeming of necessity.

5. Inconsistency is necessity to be untrue.

6. Inconsistency has been held to be a species of inconceivableness or unthinkableness. This as I shall show more fully by-and-by (xli. 4) is an error. A square circle is conceivable, although it is impossible to form a corresponding image. If square circles were inconceivable there could be no question about them. So thinkable are they that we are now reasoning about them.

7. Seemings of inconsistency are either intuitable or unintuitable. That of the opposite of an axiom is

intuitable: that of the thesis, The three angles of a triangle are *unequal* to two right angles, is unintuitable.

8. The discovery of the species complete and incomplete seemings of necessity exposes two species that may be distinguished as *guaranteed* and *unguaranteed* certitude, and two corresponding species, guaranteed and unguaranteed certainty. The difference between guaranteed and unguaranteed certitude is qualitative, not quantitative. My unguaranteed certitude that there is a reality corresponding to my idea of Cosmos is not quantitatively inferior to my guaranteed certitude that the sum of the parts is equal to the whole; but when I study these certitudes and their theses I discern a flaw in the unguaranteed certitude that does not discredit the guaranteed certitude: the seeming of necessity correlative to the former is incomplete; it affords room for consistency of the opposite, whereas the other seeming of necessity seems to exclude possibility of a consistent opposite. Nevertheless it cannot be correctly said that one is *more* certain when his certitude is guaranteed than when it is unguaranteed.

9. Knowledge that involves guaranteed certitude is guaranteed, and all other knowledge is unguaranteed.

CHAPTER III.

REASON.

XXI.

Probability is undefinable. Like certainty, it is the *differentia* of a species of theses. It is quantitative, graduating from a minimum to a maximum that is scarcely distinguishable from certainty. Its minimum is a degree of a scale that graduates from a zero at which theses scarcely exhibit a sign of verisimilitude, and, indeed, this scale is itself part of a greater one which ascends from that zero to certainty.

XXII.

1. An Opinion is *the mental relation to a thesis supposed by probability of the thesis.* If it were tenable that opinion is a species of discernment, it might be defined as discernment of probability, but opinions, like knowledges, are for the most part unconscious, and must be defined accordingly.

2. Opinion varies in degree with the correlated

probability. Its higher degrees are, as it were, a *terra firma* upon which the mind rests and acts with as much confidence as upon certainty, for which reason opinion of those degrees may be distinguished as strong, and the opposite species as faint, opinion.

3. Opinion is divisible into the species, emotive and unemotive opinion. Faith, the confidence on which enterprise usually proceeds, and the opinion involved in fear, are examples of emotive opinion; belief in the Darwinian hypothesis, of unemotive opinion. Strong emotive opinion that has for object one's own power or the power and good disposition of another, is confidence. That which has for object divine power and goodness is faith; that of which the object is one's own power is self-confidence. Self-confidence, which is a species of courage, is the fountain of enterprise, not a *sine qua non*,—for a coward may be theoretically enterprising,—but the main source.

XXIII.

Circumstances have prepared the term, *belief*, for a more extended and important signification than what has been hitherto annexed to it. According to this signification, a belief is either a knowledge or a strong opinion. Viewing belief as a genus, it comprehends the subgenera, knowledge and strong opinion. The latter comprehends the species, strong emotive opinion and strong unemotive opinion.

XXIV.

Doubt is privation of certitude as regards a thesis that makes some pretension to belief,—one supported by some incentive to belief. When the mind is suspended between opposite incentives to belief of equal force, pure doubt (doubt unattended by any leaning to belief) obtains. Doubt is essential, but not proper, to opinion. It is either conscious or unconscious.

XXV.

There is a mental act which, although it be unconnected with an intention of communication or with words or any significant act, so resembles a fundamental constituent of what is commonly denoted by the term, assertion, that it is entitled to be classed as a species of assertion; in other words, the signification of the name, assertion, should be enlarged so as to include it. According to this arrangement, *assertion* is either *significant* or *non-significant*, the former when it does, and the latter when it does not, involve a proposition. The correlatives, affirmation and negation, are essential to assertion. An affirmative proposition implies negation of the opposite of what is affirmed, and a negative one affirmation of the opposite of what is denied. But in certain cases both correlatives are obvious, and in others one of them is latent,—latently implicit,—relatively to the assertor. In propositions constituting narrative one of the correlatives is generally latent. In philosophical and scientific proposi-

tions, on the other hand, both correlatives are obvious. The assertor consciously denies the opposite of what he affirms or affirms the opposite of what he denies. Now obvious affirmation and negation are essential to non-significant assertion. When evidence begets discovery the discovery is united with a non-significant assertion involving obvious affirmation and negation, as in the case of the juryman to whom the evidence discovers the guilt of the accused, or in that of the mathematical pupil to whom it discovers the truth of the theorem. Now significant assertion is not confined to discovery. If the truth of what is known, *e.g.* that I exist, be put in question, the question may excite a non-significant assertion affirmative of the existence and negative in respect of its opposite.

XXVI.

A judgment is a non-significant assertion. It involves a conscious reference to opposite theses, being affirmative of one and negative of the other. It is essential to it to be conscious. It is instantaneous, it has no duration—the knowledge which it initiates, or which precedes and follows it and refers to the same object, is not a judgment. I know when I am not thinking of the matter that things equal to the same are equal to one another; if this be put in question in my mind, I judge that it is true, and I may dwell for a certain time on the truth: the unconscious knowledge that precedes the truth and the dwelling on the truth are not judgments.

XXVII.

A Judgment supposes question. Question is undefinable. It comprehends the two kinds, communicative and incommunicative question, the former being that which is put by one person to another, and the latter that which the mind puts to itself.

XXVIII.

Apprehension is *discernment that is not a judgment.* All actual objects that are not objects of judgment are objects of apprehension. Judgment involves apprehension. To judge that the three angles of a triangle are equal to two right angles, there must be apprehension of right angles, of a triangle, and of its three angles. Apprehension unconnected with judgment, *e.g.* perception, remembrance, fancy, is simple apprehension.

XXIX.

Some of the greatest errors that deface and obstruct philosophy are incident to oversight of the boundaries that divide judgment from apprehension, and it is remarkable that, while the spontaneity from which language for the most part proceeds respects those limits, it is by philosophers they have been effaced. The name, Judge, is appropriated to the functionaries on whom the administration of law mainly depends, and it connotes the *differentia* of the mental acts that constitute the supreme part of their function. These

acts are non-significant assertions respecting what is in question. They are types of a kind of mental event that is entitled to the greatest possible distinction. No better disposition can be made of the familiar term, judgment, than to confine it to the denotement of individuals of this kind. The popular tendency as regards the use of the term has been to apply it in this way, but the tendency has been thwarted by philosophers who would have the term to be the common name of mental events that are expressible by credited propositions,—a kind as real and of as much importance as the kind, Men with a mole on the cheek. Logic originated the perversion. Overlooking the fact that propositions express objects of simple apprehension as well as objects of judgment, and excite simple apprehension as well as judgment, *e.g.* the proposition, It rains, uttered without question, or the propositions that constitute a narrative, they accounted every mental event that is expressible by a proposition a judgment. They thus put in relief a kind to which the indolence of philosophy could refer a great and perplexing variety of mental events the sorting of which might otherwise cost toilsome study and long delay; and the temptation prevailed. According to Sir William Hamilton, to be conscious is to judge: to see, hear, smell, [etc., is to judge. "The fourth condition of consciousness," he tells us, "which may be assumed as very generally acknowledged, is, that it involves judgment. A judgment is the mental act by which one thing is affirmed or denied of another. This fourth condition is in truth only a necessary consequence of the third,—for it is impossible to discriminate without judging,—discrimination or contradistinction being in fact only the denying one thing

of another. It may to some seem strange that consciousness, the simple and primary act of intelligence, should be a judgment, which philosophers in general have viewed as a compound and derivative operation. This is however altogether a mistake. A judgment is, as I shall hereafter show you, a simple act of mind, for every act of mind implies a judgment. Do we perceive or imagine without affirming, in the act, the external or internal existence of the object? Now these fundamental affirmations are the affirmations,—in other words the judgments,—of consciousness."[1] Accordingly, we are required to believe that the first perception of the infant involves a synthesis of the perceived appearance with the mental symbol or idea of reality, and that the appearance and the symbol present themselves disjoined, but as candidates for union, to the judging faculty, which, without a reason for the synthesis, unites them. Is it not a needless invoking of prodigy to demand that the infant, at the very beginning of conscious life, generates an idea of existence unconnected with a symbol of an existent somewhat? What hinders our supposing that the reality of the appearance is given without any mental act that could be accounted a synthesis and, for that reason, classed with the judgments of those who are specially known as judges? That analysis can detect, in the infant's apprehension, what is expressible by a proposition, is surely no reason for diluting the valuable common meaning of the term, judgment, of which Sir William Hamilton remarked, "the name has been exclusively limited to the more varied and elaborate comparison of one notion with another and the enouncement of their agreement or disagreement."

[1] *Lectures on Metaphysics.* Lecture XI.

XXX.

A judgment may be either a certitude or a strong opinion. Judgments that involve certitude may be distinguished as cognitive, and those that involve strong opinion as incognitive.

XXXI.

There is a species of apprehension which so resembles judgment that the difference between them seems at first sight scarcely important enough to be specific. The exigencies of a battle elicit, as they occur, from the inventive faculty of either general commanding, ideas of means which he at once applies without having referred to their opposites,—without assertion. He does not affirm that the measures symbolised by the ideas are apt, he does not deny that they are deficient in aptness. The ideas are objects of apprehension, not of judgment. Although the aptness of the means which he invents and applies exhibits to him an aspect not of certainty but of probability, and the correlative opinion would seem to suppose a conscious reference to opposites, no such reference obtains. Conscious reference to opposites is not essential to conscious opinion. The chess-player opines that the move he is about to make is apt, but he does not always consciously refer to the opposite theses, it is apt, it is not apt; he does not *judge* that the move is apt. When occasion elicits from craft a satisfactory scheme, the schemer does not usually affirm the fitness of the scheme and deny the contrary; the scheme is *appre-*

hended as apt, not *judged* to be apt. Now this kind of apprehension resembles recollection,—effort of memory consequent to question—as being apprehension consequent to question and to a corresponding attention in quest of an object, but it has an affinity with judgment which recollection does not possess. This affinity consists in a likeness for the peculiarity of which language has provided no name. Let apprehension having this affinity be known by the name "*vice-judgment.*" Vice-judgment is conversant only about *agenda.*

XXXII.

Incommunicative question is divisible into several species which are respectively determined by the faculty addressed. Question addressed to memory, *e.g.* what is the name of the person approaching, is mnemonical; that addressed to will or intentional instinct, *e.g.* with what motive comply, is practical; that addressed to the faculty of judgment is judicial; that addressed to the faculty of vice-judgment is vice-judicial. Attention caused by judicial question is speculation. *Reason* is *the faculty of judicial and vice-judicial question, of speculation, of judgment and vice-judgment.* This definition seems to me to exhaust all the offices of Reason.

XXXIII.

1. A reason, according to a secondary signification of the term, is an objective and *questioned* incentive to either intentional action or belief. To be a reason, an

incentive must be discerned and connected with question. An unobjective motive that instinctively causes action is not a reason. A condition or law of belief that latently determines a belief is not a reason. When Bakewell discovered the connection between a tendency to rapid fattening and a certain make of cattle, he had not in view the general principle, A thesis affirmative of a universal connection of certain subjects with certain attributes, if accredited by many instances of its truth and undiscredited by a contrary instance, is true. Although this principle contributed as law of belief to determine the induction, it bore latently on Bakewell's mind, and therefore not as a reason. To be a reason, an incentive to belief must be connected with question respecting the thesis to be believed. Beliefs that originate without questions are not caused by reasons.

2. Reasons that are incentives to action may be distinguished as practical, those that are incentives to belief as non-practical.

3. When a man, moved by a desire of a forbidden pleasure, and also by a counteracting sentiment of duty, deliberates what he shall do,—with which motive comply,—both motives are practical reasons, whereas a motive which bears without being in question or in any way objective, is not a reason. Action consequent to motives that are not reasons is, as I shall fully show in a subsequent chapter (xvii.), instinctive, not voluntary. By the way, a confusion of Will with intentional instinct,—instinct that begets intentional action,—is the main cause of modern infidelity respecting the freedom of the will.

XXXIV.

1. Non-practical reasons are divisible into two species, of which one may be distinguished as *axiomatic*, and the other as *evidential*,—or evidence. When a non-practical reason is itself the thesis to be believed it is axiomatic,—an axiom—what has been termed a self-evident truth; otherwise it is evidential. Accordingly, an *evidence* may be defined *a non-practical reason that is not itself the thesis in respect of which it is an incentive to belief.*

2. The foregoing definition retrenches the customary meaning of the term, evidence, effacing the species, self-evidence. In the *Dictionnaire des Sciences Philosophiques* Evidence is defined "dans les objets ce qui les fait paraître et les rend intelligibles,"—that in objects which causes them to be apparent and renders them intelligible. According to this definition, axioms and objects of perception are evident,—contain evidence of their own truth,—are self-evident. Now the classification which annexes this meaning to the term, evidence, is not without a basis of likeness; but the kind which that basis supports is, as regards psychological theory, not worth attention. To make it a genus relatively to the various species to which the name, evidence, is conveniently applied, would be to give occasion for a more minute and cumbersome generalisation than is needful, and for a needless addition of technical terms. My definition supposes "evidence" to be an object that tends to cause belief respecting another object.

XXXV.

Inference is *judgment caused by evidence. It is essential to it to be a beginning of belief memorable to the subject,*—a discovery. One cannot infer what he already knows. He may consider the relation of a thesis, the truth of which he formerly inferred and has not forgotten, to the evidence that made it known to him, but this is not to infer; or, he may invent new evidence of the truth, but the invention is not inference. One can reinfer only on the condition of having forgotten. It is customary to speak of evidence as inferring the conclusion. This of course is figurative. What does not seem to the subject to be discovery is not inference.

XXXVI.

1. Theology originated the term *intuition,* denoting by it immediate discernment of God,—an event which the theologian held to be supernatural. Philosophy borrowed the term from theology, employing it to denote mental event that originates immediate knowledge of reality. Perception and the mental event wherein originates knowledge of the Ego and its modifications were supposed to be its principal species. This theory of intuition was exploded by the discovery of the mediateness of perceptive knowledge. Kant, allowing the mediateness of perception, persisted in treating it as a species of intuition. Hamilton, insist-

ing that perception is immediate knowledge of reality, held it to be in that sense intuitive. Intuition, according to Schelling, is immediate knowledge of the Absolute. The Scotch and French schools of Common Sense held intuitive knowledge to be belief or judgment that obtains without reasoning or reflection. The writer is at one with this school as regards the extension of the kind which he denotes by the name, intuition. He has not succeeded in laying bare its *differentia;* but the following seems to him to be the equivalent of a definition. Intuition is knowledge not caused by such means as evidence or counting. Inference is the species to which intuition is most conspicuously opposed. Knowledge of number achieved by counting is not intuitive, because of the intervention of the counting. If there be other kinds of knowledge that, because of mediateness, are unintuitive, it is highly probable that the mediateness has such analogy with that of evidence and counting as justifies the use of the epithet "such" in the substitute for definition.

2. Intuition is either "certive" or "non-certive." Sense-perceptions are examples of "non-certive" intuitions, intuitions of the truth of axioms of those that are "certive." "Non-certive" knowledge may originate either in intuition or in inference, *e.g.* knowledge of one's father or of London Bridge is an example of non-certive knowledge that originates in intuition; knowledge of electricity is an example of non-certive knowledge that originates in inference. That which arises in inference is unsatisfactory, that which arises in intuition is the reverse. To the uncultured mind non-certive knowledge that originates in intuition seems to be exhaustive: to all minds that which

originates in inference is as unsatisfactory as the possession of a needle in a bundle of hay.

3. Intuition is either judicial or non-judicial, the former when it is, the latter when it is not, a judgment. Discovery of the truth of the datum, To be contained in a region is essential to a limit, is an example of judicial intuitions. Owing to a certain indolence of the mind, certain limits, *e.g.* the sky and the plane of the earth in respect of the apparent void that commonly passes for space, are not at first apprehended as limits surrounded by a region. So little are they so apprehended that the discovery of infinity is due to a quest of an absolute limit, such as an absolutely limiting sky. The knowledge cannot be supposed to obtain unconsciously, nor consciously out of a judgment. Discovery of the truth of the datum, An extension consists of extensions, and of that of the datum, A time consists of times, data from which we deduce infinite divisibility, is also an example of judicial intuition. Perception and ordinary recognition are examples of non-judicial intuition.

Certain judicial intuitions are discoveries; others are not. The discovery of the truth of the axioms, A time consists of times, an extension of extensions, a limit of a part of space supposes a beyond, exemplifies the former: the judgment that things equal to the same are equal to one another is an example of the latter.

4. Intuition is either conscious or unconscious. Perception is an example of conscious intuition. Intuition that begets knowledge of a custom, of the succession of day and night, of the seasons, of a kind of which the *differentia* is not known, is an example of

unconscious intuition, for it consists of a latent process that fabricates the knowledge out of material furnished by several experiences,—as will be more fully shown when I treat of experience (chap. xiv.).

5. Conscious intuition is either distinct or indistinct.[1] Intuition that is discovery is an example of distinct intuition, *e.g.* finding what one is looking for. Ordinary recognition, *e.g.* the identification involved in seeing an acquaintance, is an example of indistinct intuition. Apperception is also an example of this kind.

XXXVII.

1. A Datum is *a thesis of which the truth is intuitively known.*[2]

2. Data are either general or particular, the former when they do, the latter when they do not, consist of general theses. The datum, Things equal to the same are equal to one another, is an example of general data, the datum, It rains, incident to seeing rain, is an example of particular data.

3. Data are either guaranteed or unguaranteed, the guaranteed being those of which the opposites seem to

[1] Indistinctness supposes objectivity. It is not predicable of what is not objective.

[2] According to a secondary signification of the term, datum, a premiss is a datum.

be inconsistent. The datum, Things equal to the same are equal to one another, is an example of guaranteed data; the datum, The object I see exists independently of vision, is an example of unguaranteed data.

4. Another important division of data, viz., into judicial and non-judicial data, will fall to be considered when I treat of Induction (Book II., chap. ii.).

XXXVIII.

An axiom is a guaranteed datum. Axioms are either *discoverable* or *undiscoverable.* The axiom, A whole is greater than its part, is an example of the latter. The axioms, A space limit is contained in a space, A time limit is contained in a time, are examples of the former. The thesis, Two triangles that have two sides and the included angle in the one equal to two sides and the included angle in the other are equal, is a discoverable axiom. The mental structure admits of our apprehending a space limit,—a limit of a part of space—*e.g.* the sky, as though it did not suppose a beyond,—as though it were not essential to it to be contained in a space. A like mental indolence gives room for the apprehension of a time limit,—a limit of a part of time—*e.g.* the beginning of Cosmos,—as though it were not essential to it to be contained in a time, as though it did not suppose an antecedent part of time. To disabuse itself of the error, the mind needs to be roused to scrutiny: over and above seeing, it must look. The scrutiny dissipates the error without the help of evidence, so that intuition, and not infer-

ence, is the discoverer of the truth of the theses, A space limit is contained in a space, A time limit is contained in a time. In relation to certitude the theses are axioms, not conclusions. A child is told that above the sky is a region named Heaven. His imagination had bounded this region by another sky which, in advance of scrutiny, had passed with him for a limit not contained in a space,—a limit that does not suppose a beyond. But scrutiny is challenged, and when he *strives* to imagine the limit as excluding a beyond, he fails. Another region bounded by another sky emerges. Several other abortive trials of this kind, which perhaps project him into a seventh heaven, terminate in the certitude that there is no end of upward beyonds. So, in the writer, somewhere about his seventh year, originated his idea of Infinity,—an event that constitutes one of the most conspicuous and ineffaceable epochs of his life. He did not distinctly formulate the thesis, A space limit is contained in a space: he unconsciously discovered its truth: the event originated unconscious knowledge of the truth of the thesis. One might easily fall into the error that the discovery was a conclusion. It might be supposed that the abortive trials were so many instances of the exclusion of containing spaces by space limits, and constituted evidence for the induction, that all such limits exclude containing spaces; but the discovered thesis is guaranteed, whereas it is not competent to induction to beget discernment of inconsistency of the opposite, and multitude of instances has no weight with deduction. On this more light will be thrown when we treat of Deduction and Induction. Ignorance that it is essential to evidence to be a thesis other than the thesis urged on belief misled Euclid into a counterf

of demonstration as regards the thesis, Two triangles that have two sides and the included angle in the one equal to two sides and the included angle in the other are equal. The thesis, although not obvious without scrutiny, convinces scrutiny of its truth without the help of another thesis.

XXXIX.

Fact is *intuitable reality*. The name, fact, is sometimes used as denoting unintuitable as well as intuitable reality; but, as it is important to distinguish intuitable reality by a special name, the name should be confined to the narrower meaning.

XL.

Reasoning is either communicative or tacit, the former when it is discourse for the enlightenment or deception of another, the latter when it is discovery of truth or argument, or speculation in quest of such discovery.

CHAPTER IV.

THE APPARITIONAL AND INAPPARITIONAL.

XLI.

1. COLOURS, sounds, odours, flavours, ideas of bodies, are examples of objects that are appearances. Identity, familiarity, durability, infinity, necessity, value, polity, are examples of objects that are not appearances. If the term, phenomenon, were applied according to its etymological import, it would be the common name of objects that are appearances, it would be confined to these, while the immediate objects symbolic of identity, familiarity, durability, etc., would not be classed as phenomena. But the distinction between objects that are and objects that are not appearances is now I believe made for the first time, and therefore the term, phenomenon, cannot be supposed to have been customarily restricted, even by philosophers, to the former. For this reason it is presumable that the kind to which Kant applied and restricted the term, intuition, includes objects that are not appearances; that discernment of identity, for example, is, according to this idea, an intuition. Had he confined the term to the denotement of discernment of objects that are appearances, he would have turned its familiarity to

good account, for no species of discernment better deserves a familiar non-descriptive[1] name. To fill the void I distinguish immediate objects that are appearances and the corresponding remote objects as *apparitional.* The idea of a man is an apparitional idea, and a man (supposing man to resemble the ideal image whereby he is known) is apparitional. The idea of electricity is *inapparitional.* The ideas of identity, durability, familiarity, etc., are inapparitional, and the things they symbolise are inapparitional. I also distinguish as apparitional all discernments of which the objects are appearances, and the opposite species as inapparitional.

2. Appearances, whether immediate or remote objects, include all objects of sensational intuition, *e.g.* colour, figure, solidity, flavour, odour, heat, cold, and the corresponding remote objects; they include all objects of emotive intuition, *e.g.* beauty, ugliness, virtue, purity, vice, foulness, nobleness, baseness, and the concretes of which these are attributes. They seem to include representations of past consciousness from which we derive what we know of consciousness that is not sensationally or emotively intuited, *e.g.* representations of remembrance, imagination, judgment, volition, etc. I do not pretend to trace the whole of the boundary that divides between appearances and the inapparitional. I am at a loss in which of the kinds to place our ideas of mental events not originally made known by sensational or emotive intuition, and in which to place the Ego *quâ* object.

[1] Non-descriptive names are those that respectively consist of a single word, e.g. *man;* descriptive names are those that respectively consist of two or more words, e.g. *John's horse.*

3. Appearances are either complete or incomplete. An appearance that, except as regards what is needful for contrast, is possible out of connection with any other appearance, is complete: all other appearances are incomplete. The appearance of a man, a horse, a cloud, is an example of complete appearances; that of solidity, circularity, angularity, of incomplete appearances. The importance of this division will appear when we treat of Abstract Ideas (chap. xviii.).

4. There are counterfeits of general names, counterfeits that denote no kinds, correspond to no concept—to no idea whatever—yet serve as hinges of question and judgment, *e.g.* the counterfeit, square circles, which gives ground for the judgment, square circles are impossible. Such counterfeits tend to impose belief that they correspond to concepts and that the concepts are inapparitional. I was betrayed into this error and therefore think it expedient to warn the reader against it.

The concepts symbolic of life and power are inapparitional. These qualities are liable to be confounded with the appearances that manifest them; but, when distinguished from these, *e.g.* force from motion, it is plain that they are inapparitional. I shall show [§ CI. 2*b*] that a species of power is apparitionally symbolised but scrutiny finds that the thing symbolised is inapparitional.

The utility of the discovery of the inapparitional is instanced in the solution of the following question; —seeing that what is apparitional in the immediate object of a tactile or visual perception never includes more than what corresponds to a part of the body perceived, and that, when we remember or in any way

think of the body without perceiving it, what is apparitional in the immediate object of the remembrance or thought corresponds to only a part of the body, how do we come by an idea of the body,—of the whole of the body? We cannot by any effort apparitionally imagine the whole of our friend, or of a house, or more of either, in any one instance, than can be simultaneously perceived. But if we never discern an appearance that corresponds to the whole of the friend or the house, and if there be no such thing as an inapparitional object, the fact that the whole of the friend or house is known to us mocks the criterion of inconsistency of the opposite. The solution is, that percepts symbolic of bodies, and the corresponding immediate objects of imperceptive discernment, consist of apparitional and inapparitional constituents, the apparitional constituent being symbolic of only a part of the remote object, and the inapparitional one of the complement. One can apparitionally imagine all the parts of his house successively, but can never have an apparitional idea of all of them. The fact that one can imagine the whole partly by means of an appearance and partly by means of an inapparitional object, and that he can, with perfect facility, successively and apparitionally imagine the other parts shifting from one imagined part to another without losing the idea of the whole, causes the assumption that he simultaneously imagines all the parts by means of an apparitional idea. But experiment is decisive that we see and otherwise discern only parts of bodies, and this supposes, unless it be held with Reid that we think and consciously know without the intervention of ideas, that discernment of bodies has for object an inapparitional complement.

5. Contrast a thing considered as sample with the same thing not so considered, say a handful of wheat or a mathematical diagram, the wheat relative, as sample, to a cargo, the diagram to a kind of angles, triangles, or circles. How different is the object considered as sample from what it is when not so considered. But is the difference an apparitional object? Clearly not. What is denoted by the word "all"—the somewhat that excludes more—is also an example of the inapparitional object. The ideas of Nothing, and Annihilation, are inapparitional objects, but objects perfectly consistent and intelligible. Extreme Nominalism is probably the offspring of ignorance of the kind, inapparitional objects. The constitution of the mind is such that it is competent to names to be at times the sufficient substitutes of both apparitional and inapparitional ideas. This function, favoured by ignorance of the kind, inapparitional objects, suggested the hypothesis that general names are in all cases the sole objects of general judgments. As though a man whose circumstances had transferred him from less to more agreeable customs could not know the good that had befallen him if he had not the general name, custom, or a corresponding general name, to be a nucleus of the knowledge. The idea of Custom is in part inapparitional. We remember our customs by means of a sample without any reference whatever to a name. By means of such samples we imagine, compare, and expect customs without reference to a name. One may imagine a counterpart of St. Paul's occupying the site of the Tuileries, the ideal image of the Cathedral being in no respect, save as to its circumstances, different from that whereby we think of the real St. Paul's. But the total object of which the

latter image is a part, differs from that of which the former is a part, the one including a symbol of reality, the other a symbol of unreality. These symbols are inapparitional constituents, the one of the total object of one of the discernments, the other of the total object of the other. Now to every discernment its total object must seem either real or unreal, and therefore the total object of every discernment must involve an inapparitional constituent.

XLII.

The idea of Infinity is not an appearance of an infinite magnitude. It is a mere inapparitional symbol. Sir William Hamilton, taking it for granted that the infinite is not cogitable without an appearance of an infinite magnitude, which he rightly knew to be impossible, judged that the infinite is incogitable,—unknowable. How, being unknowable, it could be in question, he does not inform us, but, instead, constructs for us a stupendous hypothesis concerning what he terms *the Law of the Conditioned.* He might as well, on the ground that we are incapable of an ideal image of all actual and possible triangles, deny that we know the universality of the equality of the three angles of a triangle to two right angles. The immediate object of this knowledge is an inapparitional symbol. The infinite referred to when the object is infinite divisibility, is also symbolised by an inapparitional symbol. The symbol originates in the discovery of the truth of the unobvious axioms that an integral part of time consists of integral parts of time, or an integral part of space consists of integral parts of space, or that an extension consists of extensions.

CHAPTER V.

ATTENTION AND COMPARISON.

XLIII.

1. THE common idea of *attention* supposes it to be discernment dependent on volition. But volition, as will be fully shown when I treat of Will (chap. xvii.), is merely a species of intentional action, the opposed species being action of instinct that proceeds on intention. The error that gives all intentional action as volition being dissipated and the common notion of attention correspondingly modified, Attention is found to be (and so I define it) *discernment that depends upon intentional effort*, whether voluntary or involuntary. I am corroborated by Sir William Hamilton not only as regards the difference between the genus, intentional action, and its species, volition, but also as regards the thesis that it is intentional action, not volition, that is essential to attention. "I am persuaded," he says, "that we are frequently determined to an act of attention, as to many other acts, independently of our free and deliberate volition."[1] A mental event, however that resembles attention in every respect save that of dependence on intentional effort, is commonly con-

[1] *Lectures on Metaphysics.* Lecture XIV.

founded with attention. There are objects that fascinate and all but absorb the mind; for example, intense pain or recent good fortune. So far is the concentration of mind caused by such objects from being dependent on intentional effort that the utmost efforts of the subject to direct his mind to other objects are abortive. This kind of discernment then, if dependence on intentional effort be essential to attention, is not attention. It is a mistake to advise the grieved friend to divert attention from the grief. He does not hold to, but is held by, the grief. Another error mistakes for attention the discernments of the point of greatest vividness in the field of objects that simultaneously occupy a mind. Following the analogy of the term "field of vision," the term "objective field" has been given as the common name of the wholes of which the parts are the objects that are simultaneously present to a single mind. The field of vision is but a part of the objective field. In both there is a point of maximum of vividness. In proportion as objects in the field of vision are remote from this point they are obscure, and there is a corresponding gradation from vividness to obscurity in the objective field. When one is absorbed in meditation with his eyes open in broad daylight, although he is not looking, he sees, and his field of vision has its point of greatest vividness, but the point is not an object of attention. We have good reason to believe that the point of greatest vividness in the objective field, like that in the field of vision, is not always an object of attention. Reverie does not exclude from the objective field a point of greatest vividness, but it does exclude attention, for privation of attention is its *differentia.* Accordingly, discernment of the point of greatest vivid-

ness in the objective field is not always attention. Attention makes the point of the objective field on which it is directed the point of greatest vividness, but inattention does not exclude from the field a point of greatest vividness. It is not true that "there is no consciousness without attention."[1]

2. Let the concentration of mind that is caused by the attraction of the object be termed *quasi-attention.*

3. Attention is essential to discrimination, but not to discernment. We discern, but do not discriminate, the distinct parts of the field of vision that surround the centre, and of these the parts near the centre are more vivid than the remote. The discernment of the various apparent sizes of the visual object which the percipient is approaching, is a notable example of undiscriminating discernment; every one of them is discerned, and for lack of attention not one discriminated. The discernment begets an unconscious knowledge that approach to and recession from a visual object occasion variation of the apparent size of the object; but few, if any, remember individual instances of such a variation. We undergo a series of perceptions of different sizes, but not discernment of the series. The experience may found in our minds the condition of a remembrance of the series, in other words, it may give us unconscious knowledge of the series, but this knowledge is not discernment of the series. When one perceives an increase of temperature, he undergoes a series of perceptions of degrees and also discerns the series. A comparison of this series with that of the perceptions of sizes exposes in the one a discernment that is wanting in the other.

[1] Sir William Hamilton's Lectures. Lecture XIV.

XLIV.

Contrast is *elucidation by difference.* It is a condition *sine qua non* of objectivity. No contrast no discernment. Difference is divisible into that which is, and that which is not, contrastive. The difference between colours, that between odours, that between sounds, the difference between any two correlatives, are examples of contrastive difference.

XLV.

1. Comparison is *attention or quasi-attention to contrast.* Contrast without comparison, *e.g.* that which determines the objects of vision that are not objects of attention or quasi-attention, may be distinguished as fundamental; contrast involved with comparison, as dependent. Dependent contrast presupposes objects given by fundamental contrast. Certain philosophers employ the term, comparison, as denoting discernment of relation. This is a departure from the popular meaning of the term which is the reverse of convenient. Relations are objective in every perception,—*e.g.* in the perception of a man the mutual situation of the parts of his body, in that of a canal the parallelism of its banks,—but every perception does not involve what is commonly signified by the term "comparison," because they do not all involve attention to contrast. The objectivity of parallelism of the banks in the perception of a canal is indistinct, and therefore the corre-

lated discernment is inattentive. It is essential to the object of comparison to be distinct.

2. Comparison is either judicial or non-judicial; the former when the discernment which it involves obtains under question, otherwise the latter. When it is in question whether a temperature has increased, and one judges that it has, the judgment is involved in a judicial comparison; when, without question, one is conscious of increase of heat, the discernment is involved in a non-judicial comparison.

3. To consider two or more objects with a view to comparison is termed comparison. This is a secondary meaning of the term.

CHAPTER VI.

REDINTEGRATION.

XLVI.

1. We owe to Sir William Hamilton the denotement by the name "redintegration" of the great mental law hitherto known as the law of the Association of Ideas, and; in this name, an explanatory connotation of the peculiarity of the law. It is this;—when a part of a cause which had for effect a certain mental event is acting on the mind, the mind tends to generate and undergo the like of the whole event. For example, I see a carriage in motion and at the same time hear a certain sound which is then for the first time given to me as effect of the motion of the carriage; on another occasion I hear the sound without seeing the carriage, and my mind generates and undergoes an image of a moving carriage given as cause of the sound. The like of only a part of the cause is in action, and nevertheless the mind produces the like of the whole corresponding mental event.

2. But Sir William Hamilton does not seem to have been aware of the full scope of the law which he so happily named. He supposed it to be confined to

the suggestion of thought by thought, whereas the operations which it determines are mainly in and upon either an unconscious part or an unconscious accessory of the mind: the connections and order of consciousnesses which it determines being mere effects of latent operations. The operations are evidence of the existence of an unconscious part or accessory of mind which bears to consciousness such a relation as the magic lantern bears to the pictorial disc it casts upon the screen. All the figures in the disc and all its pictorial changes are effects of the lantern and of changes wrought in it, and all the objects in the field of consciousness and all their changes are effects of the part or accessory and of its changes. No figure in the disc is in the relation of cause to any other figure, and although many consciousnesses are remote causes of others, no consciousness is a proximate cause of another. Visual perception of solidity exemplifies the bearing of the law of redintegration. Concurrent vision and touch give an object as being of a certain colour and solid. Afterwards, when the like of the colour bears on the eye without any concurrent tactile experience, the object is apprehended as solid. Now, in the second perception, the symbol of the colour does not precede that of the solidity; they obtain simultaneously; therefore the action of the external cause of the perception whereby the redintegrative work is wrought must have been upon a mental part or accessory outside the pale of consciousness. It is not the symbol of the colour which suggests that of the solidity, as Sir William Hamilton's theory pretends, but a latent action upon some such mental part or accessory as Physiology has found the encephalic and nervous

3. Connections and sequences of mental symbols are not the only products of redintegration. It connects mental event with the motions and attitudes of the body. I shall show, by-and-by, that trains of cerebrations underlie and cause the train of ideas, so that both are subject to the law of redintegration. Skill is the offspring of redintegration, which disposes the organs to produce automatically the whole of a series of actions intentionally begun, if the actions have been repeatedly otherwise performed, *e.g.* walking to a given place according to intention when the mind is otherwise occupied, knitting, spinning, sometimes playing the piano in sleep, reporting while asleep in the House of Commons (a fact authenticated by Dr. Carpenter), etc.

CHAPTER VII.

GENERAL SYNTHESIS.

XLVII.

1. As I shall have occasion to employ the term, *general synthesis,* before I define Kind and Essence, and the order of definition requires that kind and essence be defined in advance of what I term general synthesis, I give in this chapter an explanation of the meaning which I annex to the term, an explanation which, although in its right place it is a definition, makes no pretension here to scientific exactness.

2. The mental act which generates a beginning of knowledge, whether conscious or unconscious, that individuals of one kind are to those of another in the relation of subject to attribute, may be termed "general synthesis." It is not pretended that the term truly describes what is wrought by the act it denotes, it is merely figurative and technical. When an Englishman in Scotland discovers, by his own experience, that Scotchmen are shrewd, he seems to put together in the relation of subject to attribute the concept that serves as sample of the kind, Scotchmen, and that which serves as sample of the kind, shrewdness or shrewd-

nesses. This seeming of synthesis of concepts suggests the figurative name, "general synthesis."

3. General synthesis may be either conscious or unconscious. The first physicist who saw a diamond burn underwent a conscious general synthesis in the judgment, All diamonds are combustible. The general synthesis of the burned child is an example of unconscious general synthesis. Repeated inattentive and undiscriminating discernments of connections of events, *e.g.* of that of rain with a certain appearance of clouds, sometimes beget an unconscious general synthesis, *e.g.* that clouds of that appearance are subjects of a condition of imminent rain. The discernments so modify the mind that the general synthesis might obtain either consciously or unconsciously. An accident conjunctive with the completion of the modifying process might make the synthesis conscious; without such an accident the synthesis must obtain unconsciously. Unconscious knowledge of physiognomical indications, and of symptoms, and an unconscious equivalent of weather-wisdom, obtain in this way. The knowledge manifests itself for the most part in individual instances, scarcely ever in general judgments. The subject knows, he cannot tell why, that such or such a person is untrustworthy, or has such or such a malady, or that it is about to rain or clear. Something, he knows not what, in the person or the sky, informs him; the person or sky is significant, although the difference that makes it so is undiscerned.

CHAPTER VIII.

RETROSPECT.

XLVIII.

1. RETROSPECT is *discernment of what is given as being the whole or a part of the obvious past or as having belonged to the obvious past, e.g.* the time antecedent to Cosmos, the foundation of Rome, Cæsar, a past experience of the subject. Retrospects comprehend a remarkable species which deserves a monopoly of the name, remembrance, viz. retrospect that seems to be immediate discernment of a past event undergone by the subject. The seeming is obviously inconsistent, but none the less a valid *differentia.* I shall restrict to this signification my use of the term, Remembrance, and correspondingly that of the term, Memory. Memory I understand to be the faculty of remembrance. According to Sir William Hamilton, "Memory is the power of retaining knowledge in the mind, but out of consciousness."[1] This is clearly a wide departure from the common idea of remembrance and memory, and by no means an improvement. It supposes a man to be remembering what he is not thinking about, *e.g.* the foundation of Rome or the

[1] *Lectures on Metaphysics.* Lecture XX.

equality of the angles of a triangle to two right angles. It evinces the confusion in which the ideas are involved, and the need of a new classification.

2. Retrospect sometimes refers to events that were experiences of the subject but are quite forgotten, *e.g.* that during a certain remote period the subject regularly breakfasted, dined, and slept. The object of this retrospect is not immediately, but is mediately, given as having been an event undergone by the subject. At first sight the retrospect opposed to remembrance presents the aspect of an inference, and belongs to a kind of mental event of which I shall treat by-and-by (xcv.) under the name, *quasi-inference.* If the subject endeavour to explain the origin of the knowledge it involves, the first suggestion likely to offer itself is that it sprang from an inference too rapid for notice, and based on the evidence that privation of regular breakfasts, dinners, and sleep during any considerable period is an event too conspicuous to be forgotten. That no such inference obtained or was possible, is proved by the fact that, ever since the period in question, he was unconsciously cognisant of the pretended conclusion. The knowledge was an unconscious product of experience, a kind of mental event which will occupy our attention by-and-by. The contrast of this knowledge with that of remembrance serves to reveal in the latter a superior degree of intimacy and satisfactoriness attaching to the *differentia,* seeming of immediateness.

3. Having in view the difference which the above contrast exposes in mnemonical knowledge, we are able to distinguish a species of remembrance that

would otherwise be liable to be confounded with non-mnemonical retrospect. A change from adversity to prosperity occasions a change of the customs of a life which tends to make the dreary ones a frequent object of retrospect. They are not forgotten, they are remembered, not directly, but by means of an ideal event that serves as type in respect of which they are antitypes,—a true concept. Nevertheless the retrospect seems to be an immediate discernment of a past event undergone by the subject, and is therefore a remembrance.

XLIX.

1. It is probable that the idea of time is developed piecemeal, and that its constituent which symbolises the past originates in a remembrance. It is consistently conceivable that the infant, undergoing remembrance before he had undergone expectation, should have the past incidentally for object before an ideal symbol of the future obtained in him. An ideal symbol of the past is not possible apart from one of the present, so that the infant's idea of the past, unconnected with a reference to the future, must symbolise the past in contrast to a present. It is also consistently conceivable that the infant, undergoing expectation before he had undergone remembrance, should have the future incidentally for object before an ideal symbol of the past had obtained in him, the future being given in contrast to the present. And, since consistency does not object to the possibility of a gradual development of the idea of Time, such a de-

velopment is probable. When the origin of an idea can be consistently imputed to experience, common sense demands that it be so imputed, though the notion of an *à priori* origin of the idea be consistent. It seems to me probable that expectation contributes its quota of the idea of Time, viz. the symbol of the future, before remembrance develops a symbol of the past. Irritability having caused the first suckling of the nurse's breast, when the infant's mouth again encounters the nipple redintegration would connect with the tactile perception the idea of the associated satisfaction as being imminent, determining an expectation, and therein a symbol of the future. It seems to me probable that the circumstances of the infant favour the obtaining of such an expectation in advance of a remembrance, and, therefore, the objectivity of the future in advance of that of the past.

2. The thesis that expectation caused by redintegration engenders the idea of the future, is corroborated by its explanatoriness. It explains the great law of expectation of the like of the past,—how we are determined to count on a future that mainly resembles the past,—a law which probably determines or contributes to determine our belief that, for an indefinite time, nature will function as she has functioned. The infant's first idea of the future, according to this theory, is the idea of an imminent event like one he had previously experienced. He makes no comparison, he discerns no likeness, he does not refer to the past; but what he anticipates is the like of a past object of his experience. Because he experienced that object, he expects the like. The future he expects is necessarily the counterpart of what he experienced; but events

will instruct him to expect variety as well as similarity, only the variety is to be superficial, the similarity fundamental.

3. Let retrospect that has for object what is given as past event be distinguished as historical, and that which has for object past time unconnected with event as transcendent. A retrospect that has for object the foundation of Rome, or that I breakfasted this morning, is historical; one that contemplates time anterior to Cosmos is transcendent.

CHAPTER IX.

SUBSTANCE.

I.

ONE of the leading intentions of this chapter is to define *kind* and *essence*. A kind being a species of sum, it behoves to define the term "sum" before defining Kind. But a definition of the term, sum, depends upon a definition of the term "unit." Now, the *differentia* of the kind, units, is far from obvious, seeing that a unit may itself consist of units. To find out what is common and proper to units that do and units that do not consist of units, for example, to a monad such as an atom, an emotion, a volition, and such a unit as *one* hundred, *one* thousand, *one* million, is not an easy matter. I shall have to tax the attention of the reader in quest of the *differentia* of Unity. Essence being a species of attribute, I should define "attribute" before I define essence. But, attribute having been hitherto held to be a correlative of substance, it becomes necessary, as a preliminary of a definition of attribute, to examine the idea of Substance. But this idea breaks down, or rather evaporates, under scrutiny. The valid idea which it masks proves to be that of the correlatives "concrete" and

"attribute." Not the speciosity, Substance, but the reality "concrete," turns out to be the support of attribute.

I define essence and accident, showing that essence differs from quality. I briefly consider the three grand divisions of attributes, viz. qualities, changes or events, and relations. I next attach the term, substance, relieved of the erroneous part of its meaning, to a signification to which it has been always tending, making it the common name of all parts of the τὸ πᾶν that are naturally ungenerable and annihilable; and I exhibit a superlative attribute of substance which makes it an equivalent of Mind, viz. orderly concurrence of aptitudes.

LI.

Quantity is that in a thing in virtue of which it is possible for the thing to be greater, less, or equal. It is the pivot of the relations "greaterness," "lessness," and equality. After I have defined Quality I shall show that quantity is a species of quality.

LII.

1. We have no common name for subjects of plurality, things of which each consists of two or more things, but the received meaning of the term, *sum*, recommends it as the best to connote bare plurality. The difference between a sum and a whole is not

obvious. Wholes are a species of sums, viz. sums of which the units are so related that the relation gives to their plurality the aspect of being involved in unity, *e.g.* the sum of the molecules that constitute a stone. The mind can at will eliminate from the idea of the parts of a whole the symbol of totality, and consider them discretively as constituting a mere sum,—a non-total sum. Euclid avails himself of this power in the axiom, The sum of the parts is equal to the whole.

2. Plurality, or the *differentia* of sums, is a species of quantity. It does not necessarily nor always exhibit the aspect of quantity. Crowds, herds, swarms, constellations, dots composing a picture, are only occasionally apprehended as subjects of quantity. The feature common and proper to all perceptible pairs, that common and proper to all perceptible triads, that to all perceptible quaternions, that to all perceptible units, do not necessarily nor always exhibit the aspect of quantity.

3. Certain sums may be distinguished as eccentric, others as uneccentric. The sum consisting of creation, Cæsar, mathematics, and madness, is an example of the kind, eccentric sums; a regiment, a bird, a flock, of uneccentric sums.

LIII.

Let *monad* be the common name of things that are *not sums*. This extends the signification of the term beyond what Leibnitz assigned to it, but advantage-

ously, and so as to be easily accommodated to the meaning it displaces. Atoms, souls, sensations, ideas, emotions, volitions, are examples of monads.

LIV.

The term, unity, is frequently employed as denoting the opposite of plurality. This is incorrect, for there are plural as well as non-plural units, *e.g.* the sum, a hundred guineas, is one of ten plural units that constitute the sum, a thousand guineas. What then is a *unit?* The definition depends upon the discrimination of two unobvious kinds, one of which may be termed *pseudo-monads,* and the other *veiled sums.* Certain sums tend to pass for monads, *e.g.* a stone, a mountain; they consist of concrete parts, but the plurality is masked; such sums I distinguish as pseudo-monads. When the object of attention is a sum that is given as consisting of sums, *e.g.* a hundred guineas consisting of five piles of twenty guineas each, the plurality of the parts is obscured,—not hidden, but is as it were veiled. Accordingly certain sums exhibit the aspect of veiled plurality and others that of unveiled plurality. A sum of which the plurality is veiled may be termed a veiled sum. Now monads, pseudo-monads, and veiled sums, are objects that resemble each other and differ from all other things in this respect, that they are without unveiled plurality. Privation of unveiled plurality then is the *differentia* of a species of objects. The name, unit, is the common name of these objects. Accordingly, a *unit* is an object that *is destitute of unveiled plurality.* Unity

or the essence of a unit is the opposite, not of plurality, but, of unveiled plurality.

LV.

1. A Kind is *a sum that comprises all the like of a given archetype,—or comprises all the like of any one of its units.* It may be objected that twins, and the assembly of all men on the day of judgment, are sums that comprise all the like of a given archetype but are not kinds. They are kinds, but kinds viewed under a strange aspect, and the strangeness hides the aspect of kind. The ordinary idea of a kind contains no symbol of a limit of the sum it symbolises, and the effect of this privation is that when all the individuals of a kind are presented to the mind as a sum of which the limit is conspicuous, the sum does not seem to be a kind. The local boundary of such sums as Twins and An assembly of all men jars upon mental habit when we are challenged to regard them as kinds. By the way, when I say that the ordinary idea of a kind does not contain a symbol of a limit of the sum it symbolises, I do not imply that it symbolises an infinite or an indefinite sum. It is one thing to symbolise a sum without symbolising a limit of the sum, and quite another to symbolise it as limitless—as infinite or indefinite. Euclid's contrast of the sum of the parts and the whole instances the possibility of thinking the several without assigning it a limit, and of not assigning it a limit without apprehending it as limitless; the whole, in this contrast, being the several viewed as bounded, and the sum of the parts being the same several not so viewed. As regards the offence

to mental habit which tends to discredit the definition, it is easily atoned by dividing Kinds into those that are and those that are not important, and by sweeping out of sight, as unimportant kinds, all those which the habit ignores.

2. A cause which it is instructive to consider has contributed to hide the general aspect of sums that might be, but are not, accounted kinds. No sums save those that make themselves objects of public knowledge could acquire a non-descriptive name. Therefore the lingual instinct assigns no non-descriptive name to kinds that are not objects of public knowledge. The consequent nominal exclusion of sums unobvious to public notice from the rank of kinds tends to hide their general aspect even from the philosopher. What is instructive in the consideration of this tendency is that it brings to light an important part of the method of the lingual instinct. A sign that is at first instinctively employed to denote an individual and is then proper to that individual, is afterwards, through the influence of the faculty of recognition, employed to denote other like individuals, and so becomes common. In becoming common it acquires a connotation, viz. connotation of the kind to which the individuals belong, so that the kind is necessarily an object of public knowledge with those amongst whom the common name is in use. The connotation suggests the employment of the name slightly modified as name of the kind,—a proper name of an object of public knowledge. Thus is fashioned an instrument of great utility whereby an object of public knowledge is made to be an indicator of one not publicly known.

LVI.

Let *self-sufficient* be the common name of things that depend for existence on nothing extrinsic to them other than time and space. Cosmos is an example of the kind Self-sufficients. Whether it contain parts that are self-sufficients, is a question which seems to be insoluble. Every body and atom may, for aught we know, depend for existence on every, or some other, body or atom. Such an interdependence may constitute the universe a monad. Let *self-insufficient* be the common name of all things that depend for existence on something other than time and space. The dependence may be such that it tends to be manifest when the subject is objective. Let such dependence be distinguished as *inabditive*, and dependence of the opposite kind as *abditive*. Let self-insufficients of which the dependence tends to be manifest be distinguished as inabditive, and all others as abditive. The assignment of a general place and a name to the kind, abditive self-insufficients, does not imply that there is such a reality as an abditive self-insufficient. It implies, in this direction, nothing more than that the idea of the kind is not inconsistent. The kinds, Qualities, Relations, and Events, are species and examples of the sub-genus, inabditive self-insufficients.

LVII.

Let *concrete* be the name of a complement of inabditive self-insufficients that is either a self-sufficient or an abditive self-insufficient, and let the adjective, con-

crete, signify the state of being a concrete. The logical meaning of the word has fitted it beyond any other to take on the new meaning which I now assign to it. I take leave also to coin the word "*inconcrete*," signifying, as noun, reality that is not a concrete, and, as adjective, the state of being such a reality. Concreteness differentiates a species of sums of self-insufficients. The life, weight, and memory of a man constitute a sum of inabditive self-insufficients that is not a complement and is not concrete; the sum of the inabditive self-insufficients which comprise the man is a complement of self-insufficients and a concrete. An inconcrete sum of inabditive self-insufficients is an inabditive self-insufficient; a concrete sum of them is either a self-sufficient or an abditive self-insufficient.

LVIII.

There are abditive self-insufficients that contain concretes, *e.g.* a bodily organ. The relation of vital connection with an organism is essential to an organ and makes it an inabditive self-insufficient, whereas the solid part is a concrete. Every correlate that contains a solid part, *e.g.* a parent, a child; a sun, a planet; a lawyer, a client; a physician, a patient; is an abditive self-insufficient that contains a concrete.

LIX.

1. An Attribute is *an inabditive self-insufficient, e.g.* Solidity. It may be either an alienable or inalienable

attribute of its concrete; *e.g.* memory is an alienable, solidity an inalienable, attribute of its concrete. An attribute supposes a concrete support, but may have also an inconcrete support; *e.g.* the virility of virile eloquence, being a modification of the attribute, eloquence, has that attribute for support, and also the concrete supposed by the supporting attribute, viz. the orator. A support of an attribute is termed Subject. Subjects are either concrete or inconcrete. An attribute of an inconcrete subject is also an attribute of a concrete one. We tend to think of support as something several from, and altogether independent of, the thing supported; but this is not true of the species of supports termed subjects. What a subject supports is a constituent of the support, *e.g.* lead supports its own weight, and the weight is a constituent of the support. Oversight of this notable difference of subjective from all other support occasioned an inconsistent idea,—that of Substance. Unable to imagine the possibility of a concrete support of attributes, and necessitated to ascribe to them a support that is not itself an attribute, philosophers were obliged to adopt the inconsistent thesis, that a subject of the kind supposed by all attributes is not an attribute nor a complement of attributes. To this impossible thing they gave the name "substance." They were not deterred by the fact that an analysis of body finds in it no room for a constituent that is not an attribute, *e.g.* an unextended thing serving as support of a solidity, an extension, a figure, a mobility, and a weight. Combine in thought these six qualities and nothing else, and your synthesis has constituted a symbol of a body. Try to enhance it by the addition of something unextended serving as support to the six qualities, and

you find no room for improvement. It is surprising that the superfluity survived the raking it received from Locke: it is as robust in the philosophy of Hamilton as in that of Aristotle. Hamilton puts it as being an incomprehensible thing imposed by a necessity of thought,—a thing that is neither attribute nor concrete, but somehow clothed or penetrated with attributes. Attributes he holds to be intelligible things, and some if not all to be intuitable. He gives room for the understanding that if it were possible to imagine an intelligible support of attributes the unintelligible one named substance should be rejected by philosophy; and the idea of a concrete support of attributes being the idea of an intelligible support, is entitled, on this understanding, to expel and replace that of substance. The name Substance, however, has been tending to a meaning different from that in which it has been hitherto understood,—a meaning of great importance to philosophy, and one carrying with it so much of the old signification of the term that the latter is ready to put on its new import with scarce any violence to mental habit. In ridding philosophy of an obstruction I am not to deprive language of a familiar and useful term. After I have examined the three grand divisions of attributes, Qualities, Changes, and Relations, I shall explain the new old meaning which I recognise as rightfully belonging to the term, Substance.

2. Attributes are either *apparitional* or *inapparitional*, in other words, either sensible or supersensible. Solidity, colour, and figure, are examples of apparitional attributes: power, not given as discernible by sense, that of the moving billiard-ball to cause motion,

is an example of inapparitional attributes. Inapparitional attributes occasioned the scepticism of Hume. The structure of his mind obliged him to assume that sensible experience *comprises* experience, and that belief in the existence of what is not given as existing by sensible experience, is groundless. He accordingly dismissed the symbol of Power from his philosophy, and substituted that of necessary-connection.

3. Attributes comprehend three species, viz. Quality, Change, and Relation, whereof two, viz. quality and change, are, in respect of all other things save the third, prescindable; Relation exhibits no peculiarity that completely separates it from Quality and Change. It has hitherto eluded definition.

LX.

1. A Quality is *an attribute that is a part of its subject, and either an inseparable part or one that tends to be permanent.* Qualities accordingly comprehend the two species, separable and inseparable qualities. All human faculties on which the existence of the subject does not depend,—for instance Reason, a faculty which the subject sometimes survives,—are examples of the kind, separable qualities. According to certain philosophers quality and *essence* are identical, and accident is opposed to quality. This division supposes essence to be quality on which the existence of the subject depends. Convenience demands a more extended meaning for the term, essence. If it be restricted to inseparable quality we imply that there

are kinds void of essence, *e.g.* the kinds, Essence, Redness, Benevolence, Solidity, and the kind, Vertebrata, of which the essence is concrete. Essence is *that which, by its resemblances and differences, determines the general place of a thing*—its place in the system of kinds. Subject and essence may be identical, *e.g.* redness is its own essence. Essence may be concrete, *e.g.* a spine is the essence of an individual of the kind, Vertebrata. Accident is attribute that does not determine the general place of its subject, *e.g.* this or that thought or emotion, or the state of health or illness, is an attribute that does not determine the general place of the subject. The existence of the material orb known as Mars does not depend on its motion around the sun; the motion therefore is an accident of the orb: but it is a part of the essence of the planet, Mars, for regular motion around a sun is essential to a planet. The being projected or having been projected is, relatively to the projected body, an accident, but it is part of the essence of a projectile. To possess medical skill is an accident of the possessor *quâ* man, but it is part of the essence of the physician. These examples expose an ambiguity of the term Subject which tends to envelope our ideas of essence and accident in some confusion. To prevent confusion, it needs only that what is denoted by the term Subject be carefully distinguished, mindful that what is essence relatively to a given thing may be accident relatively to a part of the thing; *e.g.* revolution around a sun is essential to the planet, Mars, whereas it is a mere accident of the orb, Mars, which is but a part of the planet. The acuteness of an acute angle is the essence of the angle *quâ* acute, and an accident of the angle *quâ* mere angle.

2. Essence is either natural or factitious, important or unimportant. The essences of organised things are examples of natural essence; those of the kinds, houses, and physicians, of factitious essence. The seventy-sevenths of solids, men born on Friday, the cows in John's field, are examples of kinds of which the essences are unimportant.

3. Attributes are either essential or accidental. Those on which the existence of the subject depends are essential; all others are accidental. Revolution around the sun is an essential attribute of the planet, Mars, and an accidental attribute of the orb, Mars. The life of a man is an essential quality; his visual faculty an accidental one.

4. Quantity is *a species of quality.* It is common and convenient to treat of quantity as though it were the opposite of quality, and for the sake of convenience we shall continue to do so. Custom sanctions the employment of the generic name of a thing as connoting privation of the *differentia* of some species of the genus to which the name refers, for example, in the depreciatory assertion "he is an animal," or "she is a mere female," or in the contrast of "ideas" and "things," or that of "words" and "acts," whereas words are acts and ideas are things. By nominally opposing Quantity to Quality we merely oppose it to all *other* qualities.

5. Let the term, *Protean quality,* denote an accident the specific like of which is a condition *sine qua non* of the existence of the subject, *e.g.* the figure of a piece of wax, and let a kind of such accidents, *e.g.* the kind, figure,

be termed a *Protean kind.* The existence of a piece of wax depends upon the Protean kind, Figure, but not upon any individual of the kind. I term the kind Protean on the metaphorical pretext that an abstract figure underlies every particular figure, as the Realists supposed an abstract Man to be the basis of every concrete man and to be one and the same in all concrete men,—one and the same variously metamorphosed.—Note that the substitution of one Protean quality for another of the same kind in a concrete, *e.g.* the substitution of a square form for a round one in a piece of wax, does not affect the temporal identity or duration of the concrete. The temporal identity of a concrete is determined by the temporal identities of its qualities that are not Protean. The importance of this observation will appear when we treat of Substance.

LXI.

A Change is *a temporal beginning or end or a series of such beginnings and ends.* It is either natural or supernatural. Natural change is either optional or unoptional. The beginning and end of a volition constitute an optional change; all other change is unoptional. An unoptional change is a beginning or end, or a beginning and end, of something naturally generable and annihilable, involving a metamorphosis of something not naturally generable and annihilable, the latter being divested of one naturally generable and annihilable attribute and clothed with another, *e.g.* the naturally ungenerable constituent of water divested of liquidity and clothed with hardness or

aeriformity. By the way,—*unoptional or metamorphic change supposes that what changes remains the same.* Supernatural change is a beginning or an end not naturally caused, *e.g.* a creation. An *event* is *either a change or a beginning, an end and an intervening duration, e.g.* the beginning, duration, and end of Cæsar.

LXII.

1. A *relation* supposes two or more things; the relation of a thing in one state or circumstance to itself in another is not an exception. For example, the relation of resemblance between the Bismarck of yesterday and the Bismarck of to-day supposes the two different circumstances yesterday and to-day. *Identity* may appear to be a relation and an instance of a relation that does not suppose two or more things. But identity is not a relation. It is compounded with a relation on which the discernment of it depends, and so is mistaken for a relation. That with which it is confounded is the relation of two or more aspects of a single remote object, *e.g.* that of Bismarck existent yesterday and that of Bismarck existent to-day, to the single enduring object Bismarck; or that of the aspect "four" and that of the aspect "two pairs" to the same real sum; or that of the aspect "acclivity" and that of the aspect "declivity" to the same incline; or that of the aspect "sum of the parts" and the aspect "whole" to the same complement of parts.

2. Relation is either extrinsic or intrinsic. Con-

sidered in respect of the things related a relation is extrinsic, *e.g.* the fraternity of two brothers is extrinsic to each of them; considered in respect of a subject of which it is a constituent, a subject that is not one of the things related, *e.g.* the mutual relation of any two qualities of the same concrete *quâ* constituent of the concrete, a relation is intrinsic. A given relation may be extrinsic in respect of one subject and intrinsic in respect of another. Extrinsicality distinguishes extrinsic relations from qualities, but intrinsic relations being constituents of their subjects, their difference from quality is as remote from saliency as the difference between two primary colours.

LXIII.

1. We now revert to Substance. By a change of connotation we may annex to the term Substance a signification which it has always been tending to acquire. The thesis that the Universe is a series of Universes which either spring or are created out of nothing, and either naturally return to nothing or are supernaturally annihilated, could not be seriously entertained by a sane mind. We are constrained to believe in the duration or temporal identity[1] of the Universe, or rather of a concrete part of it. But parts of it are of comparatively brief duration, *e.g.* the forms we impose on wax, the liquidity which the atoms or molecules of melting ice assume, the aeriformity which

[1] Duration is coincidence of the same with a divisible part of time or with all time. An instant is an indivisible part of time,—a mere limit of a part of time.

the same atoms or molecules assume in becoming gases. The Universe, therefore, consists of parts of which the duration is, and parts of which the duration is not, commensurate with its duration. The former are those which science allows to be naturally ungenerable and unannihilable, the latter are naturally generable and annihilable. The former, as being in the relation of support to the latter, may be distinguished as fundamental,—fundamental constituents of the Universe. Every natural change, volition excepted, is a metamorphosis of a fundamental constituent of the Universe, a constituent that is divested of one naturally generable and annihilable attribute and endued with another. Certain metamorphoses of fundamental constituents are obvious, *e.g.* growth; others are unobvious, needing the eye of science to detect them, *e.g.* lightning, rain, the apparent annihilation of fuel. Now the idea of Substance is in part the offspring of metamorphic change symbolising not only support of attribute but also persistence under change and transcendent duration. Excluding what error inserted into the idea, viz. that what it symbolises is inconcrete, we come by a definition of substance that eclectically reconciles Locke and Aristotle. It is this,—*a substance is a naturally ungenerable concrete.*

2. A substance may be either a self-sufficient or an abditive self-insufficient.

3. For brevity's sake let the naturally ungenerable be known as the *perdurable,* and all other entity as the *non-perdurable.* Substance and its inalienable qualities are perdurable.

4. Substance is either material or immaterial. That of which solidity is given as being a constituent is material; all other substance is immaterial. An immaterial substance capable of being a subject of consciousness is a soul or spirit.

5. A material substance is either an atom or a body; the former if it do not, the latter if it do, consist of separable material parts. Although experience acquaints us with no atom of a size perceptible by sense, an atom is not necessarily minute.

6. As being a substance composed of mobile substances,—a concrete composed of mobile concretes,—the material Universe includes amongst its qualities a Protean quality, viz. an individual of the Protean kind, arrangements or collocations of the concrete parts of the Universe. It is impossible that the material Universe could exist out of some collocation of its concrete parts, and no such collocation is necessary to its existence. Non-perdurable quality, then, is coeval with material substance, and if the latter be pre-eternal so also is the former. As regards the material Universe the perdurable is fundamental to but not antecedent to the non-perdurable. Nor, if the material substance of the Universe be pre-eternal, is it antecedent to change: it is fundamental to but not antecedent to change. There is no escape from this thesis but in the hypothesis that material substance is the creature of a spiritual substance—a Creator. This hypothesis is not inconsistent, but it is disgraced by its implication, of a pre-eternity of inactivity passed by the Creator antecedently to the creation, and of a capricious termination of the pre-eternity by a creation.

The mind to which Being without dignity is a sty—the reverential mind—has to choose between pre-eternal substance undergoing coeval change, and a Creator culpable of a pre-eternity of idleness terminated by a caprice. The former of these hypotheses is burdened by the condition of infinite regress, but it is not inconsistent.

7. We have irresistible though undemonstrative proof that certain non-perdurable attributes, amongst others dynamic attributes, depend upon certain collocations of material substances. When vapour locally succeeds to gas, water to vapour, and ice to water, different collocations of material substances are given as being determining conditions and essential accompaniments of non-perdurable attributes; a different collocation of the same substances is given as determining a different set of attributes. An organism is a collocation of material substances, and like organisms are given as being the subjects of like susceptibilities, powers, and instincts; different organisms as being the subjects of different susceptibilities, powers, and instincts. We have cogent evidence for the belief that changes of collocation of the substances constituting the brain and nervous system are the proximate causes of all consciousness except volition. The evidence has swept the bulk of the scientific world to the conclusion that all change either is or depends on change of collocation of substances. This implies that what is termed volition is an effect of a motion and collocation of material substances, a change that obtains outside consciousness. The conclusion tramples upon a datum which is the pivot of human dignity and of morality, the datum which affirms that man is

capable of choice, in other words, that the human will is free. Is it wise to allow undemonstrative evidence to undermine a datum of such importance, or modest to pretend to knowledge that, in the domain of Nature, no change is possible but what either is or depends upon change of collocation of material substances? Does not the dogmatism of such a pretension bear to that of theology a ratio about equal to that of a beam to a mote?

8. Is an inconcrete self-sufficient possible? If the idea of such an entity be inconsistent I have failed to discern the inconsistency, but, happily, philosophy is not pressed to tax itself for an answer.

9. The primordial state of substance is commonly held to have been chaotic. Mythology, the Mosaic revelation, and a favourite conjecture of modern science, affirm the antecedence of Chaos in respect of the Cosmos. The evidence that suggested and supports the theory of evolution deserves as regards our astral system serious consideration, but does it warrant an inductive leap to the conclusion, that *all* material substance was primarily and during a pre-eternity a chaos? A part of the Universe might lapse into a chaotic state, recover, and exhibit signs of the recovery. This possibility protests against the inference of a universal pre-eternal chaos. Abortion rebukes all effort to infer the history of eternity. That an important part of event has been what is fitly described by the epithet, evolutionary, and that natural laws include laws of evolution,—laws of change from a lower to a higher type,—are theses so strongly attested that scarce any philosopher is now minded to

dispute them; but, to jump from these theses to the judgment that all substance was pre-eternally a sum of substances which, had there been any eye to observe them, would have exhibited no difference one from the other except difference of quantity, and that the pre-eternity was brought to a close by a beginning of differentiation and integration, is unwarrantable. The utmost warranted by the evidence is that the τὸ πᾶν has been temporarily, and either wholly or in part, chaotic. It may have pre-eternally alternated between chaotic and cosmic states, or parts of it may have so alternated, but Chaos has not been more a matrix of Cosmos than Cosmos of Chaos; and, in respect of attributes, the latter must be as heterogeneous as the former, for every difference of a developed thing supposes a corresponding difference in its embryo. Evolution is not, as Mr. Spencer defines it, a change from homogeneity to heterogeneity, but a change from heterogeneity that is not, to heterogeneity that is, of a nature to be perceptible by sense.

10. Is the substance that constitutes the material Universe *extended*, or unextended? The hypothesis that it is *unextended*, and that nothing real corresponds to the ideas of Space and Extension, seems to be consistent. It seems to afford a consistent theory of the Universe, — indeed a simpler one than the datum which encumbers being with space and extension. The soul or subject of consciousness may be an unextended substance connected with the other unextended substances constituting its organism, and having for its *habitat* a composite of still other unextended substances; and our idea of the connection, though symbolising it as being a relation of an unextended thing to extended

things, may be valid as enabling its subject to elicit event according to anticipation and intention. The likeness or unlikeness of an idea to a remote object which it symbolises is of no practical importance. We have valid knowledge of things exterior to consciousness when the things and their laws are symbolised by ideas which, though dissimilar to both, enable us to anticipate their events and to act so as to elicit anticipated events. The illiterate man is not ignorant of sound, heat, light, colour, because he does not apprehend them as molecular storms. The progress of science is ever more and more undoing the prejudice that the remote objects of knowledge resemble our ideas of them. Kant has made bold to deny the existence of a reality answering to the idea of Space, and a considerable part of the philosophic world has acquiesced. It may be objected that, if there be no reality resembling the idea of Space and Extension, geometry must be a chimera, not a science. The answer is that there are realities and conditions of reality which correspond to, without resembling, those ideas, and geometry is, in a certain degree, the condition of a correct cognitive relation.

On the other hand, no show of inconsistency forbids the tenet that substances are both simple and extended, that they are void of substantive parts,—the parts to which the controversy respecting infinite divisibility refers. It is true that extension supposes such parts as halves, quarters, eighths, etc. But it does not suppose them to be self-sufficients. They may be incapable of existence apart from the whole of which they are parts. The qualities that compose the whole, minus the extension, may be such that the like could not be a complement in connection with any greater or less

extension, nor therefore constitute a self-sufficient part of the thing. The controversy respecting infinite divisibility has been kept alive by the inadvertent assumption that an extended thing must be a self-sufficient, and must consist of cohering parts, an assumption which a moment's scrutiny dissipates. It seems on the contrary to be a necessary truth that bodies consist of extended parts which are not substances and do not cohere; for a cohesion is a relation, and a relation supposes two or more related things of which one, apart from all other things, could not, as support, afford the relation possibility of existence; so that cohesion supposes things which do not consist of cohering parts. Now, cohering things, to constitute an extended thing, must be themselves extended; for no sum of cohering unextended things could be an extended thing; therefore extended things consist of extended parts without mutual cohesion. The necessity of the truth may be discerned from another point of view. Hardness that depends upon cohesion, *e.g.* that of adamant, supposes a hardness that does not depend upon cohesion; it is a sum of hardnesses of the latter kind. Hardness of the latter kind may be distinguished as elemental, that of the former as non-elemental. Elemental hardness supposes its subject to consist of parts that are extended, but are not self-sufficients nor mutually cohesive: indeed elemental hardness may be held to be solidity proper, and the term, solidity, to have a secondary signification when it denotes non-elemental hardness. Admitting, then, that there are realities corresponding to the ideas of Time and Space, we are free to suppose that bodies are composed of extended parts which are not themselves aggregates of cohering parts, but consist of extended

parts that are not self-sufficients. We do not seem to be hedged in by any sign of inconsistency to a conclusion answering the question whether the substances that compose the material Universe are or are not extended. Common sense, however, prefers the thesis, that matter is extended.

11. The idea of the *extended self-insufficient* affords rest to minds that fail to find footing on the notion of infinite divisibility. They find a *terra firma* in the unity which it supposes. It will not be amiss to familiarise the mind with this idea, and with the consistency of the repugnant thesis, that Bodies are self-insufficient. The mobility of bodies and their changeableness as to mutual situation seem at first sight to suppose that they are self-sufficients, but the seeming avows its deceptiveness to a little scrutiny. A body may depend for existence on the remainder of the material Universe, and, if it do, which supposes the material Universe to be a single substance or monad, it is, in spite of its mobility, a self-insufficient. Familiarity with the consistency of the thesis, that Bodies are self-insufficients, helps to undo our tendency to mistake unguaranteed data for necessary truths. It is not impossible that the thesis might one day prove to be the key, and the sole one, to a perfectly satisfactory explanation of the Universe. If it should, it would command and would deserve to command universal acceptance at the cost of superseding data which, in the present state of our knowledge, it would be absurd to discredit. If we were lamed by the error, that mobility supposes the movable thing to be a self-sufficient, we should be able, when all other conditions of that explanation obtained, to profit by

them. The familiarity tends to rid the mind of this kind of obstruction.

12. Leibnitz held that unextended things are not interiorly modifiable by interaction. This tenet banishes the theory of natural causation as regards such things, and substitutes that of Pre-established Harmony. Its reason is that parts which admit of local change are a *sine qua non* of susceptibility to modification. The idea of Cause is the offspring of intuition of motion, and is all but invariably connected with the idea of motion. This has begotten the prejudice that causation supposes motion, a prejudice to which we owe the ingenious hypothesis of pre-established harmony. How baseless it is appears when we consider that between a cause and its immediate effect there intervenes no means, nothing that could be considered explanatory of the "how" of the cause. The vast variety of modifications which the thinking substance undergoes, though there be good reason to suppose that it depends on changes of extended parts (those of the brain), is totally unexplained by such changes. The antecedents that explain their sequents are, if any, extremely few. In view of our almost utter dearth of explanation as regards the "how" of the operation of cause, it seems strange that we should think ourselves competent to judge that there can be no natural interaction between unextended things or between extended and unextended things. The naturally ungenerable accident, weight, is an example of a modification of one thing by another that cannot be supposed to depend on a local change of parts.

13. Greek myth intimates that my exposition of Sub-

stance is a revival of a pre-historic philosophy. What should it symbolise by the metamorphoses of Pan but those of τὸ πᾶν,—all natural change, or the substantive Universe ever putting off and on non-perdurable attributes? The symbol almost literally indicates what it symbolises, and it is part of a system of symbols which, as being signs of a cosmogony that modern science is only too prone to adopt, corroborate one another. According to this cosmogony Cosmos is the offspring of Chaos. Primordially and pre-eternally Being comprised only Time and Chaos. Besides the attributes adverse to order—the Titans—Chaos included an attribute or power (Ops) in virtue of which it tended to generate order, so that its concrete constituents—its substances—should become constituents of Cosmos. As needing the co-operation of time to engender and to mature her offspring, Ops was the wife of Chronos or Saturn; but duration was denied to her children, as though Time, jealous of it, devoured every nascent germ of order. At last a beginning of order escaped the notice of Time, and the embryo developed into Cosmos. When it achieved strength that guaranteed a duration which as to infinity rivalled time, Saturn was deposed (not destroyed) by his son Jupiter—Order—Cosmos. So far the philosophy which Greek myth expressed was merely deductive; but under the figure of the insurrection of the Titans it exhibits signs of a pre-historic geology conversant with the Plutonic upheavals which according to modern geology played so great a part in the causation of the Earth's structure. The Titans hurling fragments of the Earth's crust at Jove, rocks which fell back upon and reburied them,—has not this an imposing air of signifying an abortive outbreak of chaotic incandescent

violence? Is it not possible that a pre-historic civilisation may have expected a cataclysm which would extinguish science, and sought to give signs of itself to a future civilisation by putting into mythic parcels, portable by barbarian or even savage minds, indications that man had already attained to the height of the interpreting science. That cosmogony tends to shape the idea of the divine is evinced by the Hindoo Trinity consisting of a creator Brahma, a preserver Vischnou, and a destroyer Siva.

14. Substance possesses an attribute in virtue of which it is the equivalent of Mind, the attribute *orderly concurrence of aptitudes.* The opposed species, disorderly concurrence of aptitudes, seems to have been altogether overlooked, as though there were no concurrent aptitudes in the various parts of Chaos to generate and maintain disorder. Orderly concurrence of aptitudes tends to elicit belief according to a remarkable law, which will have it that the concurrence presupposes a Designer. To this law we owe natural theology. The organic kingdom exhibits the most felicitous examples of orderly concurrence of aptitudes; all reversionary processes, of disorderly concurrence of aptitudes. Brahma and Vischnou symbolise the one, Siva the other. Orderly concurrence of aptitudes is the condition *sine qua non* of the Cosmic character of the τὸ πᾶν, of the organic kingdom, including man, of the human brain, and therein of the proximate conditions of all human design and of human intellection of every kind. It is the source of all the marvels of the world of instinct, the source of science, philosophy, art, skill, and even of religion. Wisdom is its offspring. Its proceedings, on account of their likeness to designed

actions, have seemed to be the proceeding of an impersonal Reason,—a speciousness that has of late begotten the inconsistent theory of "the unconscious idea." It works with and without consciousness,—as mind or as a mere equivalent of mind. In what is known as "reflex" action, when the action is not coupled with consciousness, as in the withdrawal of a paralysed limb from contact with an irritant, or in the instance of a decapitated frog removing with his foot a drop of acid poured upon his back, we have an example of orderly concurrence of aptitudes unconnected with consciousness, and behaving as a mere equivalent of mind. In what is known as consensual action,[1] *e.g.* the instinctive motion of the eyeballs adjusting them to single vision, a motion assumed to be caused by the visual sensation resulting from the impact of rays on the retinæ, orderly concurrence of aptitudes is coupled with consciousness, and behaves as mind. It contains

[1] It is probable that the difference which is supposed to separate consensual from reflex action is not real. The action termed consensual may be the effect, not of the consciousness supposed to be its cause, but, of the somatic event that is the proximate cause of the consciousness. Analogy protests strongly in favour of this hypothesis. When an extraordinary object of vision causes surprise, the visual perception is not antecedent to the surprise. They obtain simultaneously, and therefore as co-effects of the proximate cause of the perception. Recognition involved with sense-perception is not consequent to the perception: both are effects of the same encephalic event. What redintegration annexes to the immediate object of a sense-perception that is not itself the creature of redintegration, *e.g.* the unseen part of a seen man, tree, or house, is not consequent to visual consciousness of the seen part: both parts are simultaneously perceived and are co-effects of the same encephalic event. When one slips, and, through the raising of a leg, recovers his safe relation to the centre of gravity, he is aware, if he be a practised observer, that consciousness of the slipping is not antecedent to the raising of the leg. The cerebral change that is the proximate cause of his consciousness of slipping is also the proximate cause of his instinctive effort to recover the safe position.

a divine and an infernal part, the divine being all of it that makes for virtue and wisdom, the infernal that which makes for malignity, impurity, and misery.

LXIV.

The term, *subject*, applied to that of which we predicate, is a misnomer, seeing that a negative proposition denies that the so-called subject is a subject, *e.g.* the proposition, A is not guilty, denies that A is subject relatively to guilt. Let the term denoting that of which one predicates be known as first term of the proposition, and the term denoting what is predicated be known as the second term of the proposition. Let the member of a thesis hitherto denoted by the first term of a proposition be termed first member of the thesis, and that denoted by the second as the third member of the thesis; the copula is the second member. In negative theses the first members are not subjects, and in certain affirmative theses the first members are not subjects. The first member of the thesis expressed by the proposition, The statue is marble, is not a subject, nor is the third an attribute. It might be correctly predicated of the statue that it is a piece of marble, and as correctly of the piece of marble that it is a statue or a stone.

LXV.

As essences are in respect of concreteness, naturalness, and importance, so are their kinds; in other

words, there are concrete and inconcrete, natural and fictitious, important and unimportant, kinds.

LXVI.

Kinds are further divisible into those of which our ideas do, and those of which our ideas do not, form upon discrimination of a determining *differentia*. The idea of the kind, acute angles, supposes discernment of the *differentia*, acuteness; that of Mankind forms without discernment of the *differentia* of the kind. Public knowledge does not even now afford a definition of Man. A kind the idea of which does not form upon discernment of a determining difference may be distinguished as *primary*, kinds of the opposite species as *secondary*. Secondary kinds comprehend kinds the ideas of which originate inadvertently and kinds the ideas of which originate consciously. The various species of trees are examples of the former, the species Vertebrata of the latter. The former may be distinguished as obvious, the latter as unobvious, secondary kinds.

LXVII.

There are essences that are manifested by accidents. Those of the various species of the vegetable and animal kingdoms are so manifested. The essence that differentiates the species Man is manifested by a system of accidents constituting a form similar to that of Cæsar, Cleopatra, Queen Elizabeth. The resem-

bling systems of attributes that manifest the essence in the various individuals of the species differ greatly from one another,—as much as the form of an infant from that of an adult man, or the form of a woman from that of a man, or that of a Hottentot from the form of a shapely European; to say nothing of the endless diversities of people of the same age, country, culture, and pursuit. It is wonderful that such great differences do not exclude the likeness which manifests the specific essence. The frequency with which these similar systems of accidents are presented to the faculty of recognition that refers to Man, so relates them to the mind, that when circumstances lead it to look for the *differentia* of the human animal an imagined sample of them tends to pass for it. But when it is considered that men are often deprived of one or more of the organs that determine the typical form constituting the supposed *differentia,* philosophy is obliged to acknowledge that what it took to be essence is a mere system of accidents. It cannot, however, surrender the belief that there is a human essence. Inconsistency prevents the surrender. This taxes the inventive faculty and it begets a new idea of the *differentia,* according to which the *differentia* is an organic tendency to develope and maintain a human form,—a form like that of Cæsar. In like manner we get at the essences of all things that are classed according to their visible qualities, systems of accidents being the effects and signs of the essences. The abortive efforts to define Man,—which provoked the irony that flung a plucked chicken into one of the Greek schools, proceeded on the error that mistook for essence the system of accidents which is its effect and sign.

LXVIII.

The bearing of essence on the recognitive faculty is independent on verbal sign. It excites recognition in the lower animals as well as in man, and the former connect with it no name. When the dog barks at a beggar he manifests recognition, and in that recognition the bearing of the essence of the human individual as well as of the accidents that signify a mendicant animus and habit. The bearing is also independent on idea of kind. Recognition, as I shall soon explain (chap. xvi.), excludes reference of its object to a kind.

LXIX.

1. Let Thing be the common name of individuals of the *summum genus*. Is existence essential to things, —to the thing, possibility, as well as to the thing Substance? The absolute necessity of a whole to be greater than its part, and of a two and a two to be a four, is a thing that would *be* though nothing existed save time and space. Its existence—if it can be said to have existence—is independent of the existence involved in such things as atoms, molecules, bodies, spiritual substances, and the attributes of these. Is this necessity an existence,—an entity? I put the question in order to plead the vagueness which it is likely to evoke in apology for the makeshift division of the *summum genus*, Things, which I find it convenient to

make. I divide Things into two subgenera, viz. *entities*, and things which I make free to term *quesits;* the former comprising all things to which the popular mind easily imputes reality, the latter such things as possibility and necessity. I do not imply in the name, entities, that existence is proper to entities,—that it is not an attribute of quesits. I leave the question open. This rude division gives us two kinds which we distinguish, as we distinguish primary kinds, without discerning their *differentiæ*, and it gives us names of the kinds which suggest the question that elucidates the kinds. One advantage of the name, quesit, is, that it enables us to treat perspicuously and concisely of a kind of object which delusively tends to pass for an abstract idea and to support the doctrine of Abstraction (cxxxv. 8).

2. It may be objected that I class time and space as entities, whereas it is in question, whether realities correspond to our ideas of Time and Space. My classification does not beg this question. The term *entity*, as I employ it, connotes, not existence, but, objectivity that tends to impose itself on the popular mind as real. The pretension of Time and Space to reality pales before scrutiny, and yet, to deny it is to deny the reality of extension and event, *e.g.* the existence of matter and motion (lxiii. 10). Common sense protests that in the present state of knowledge such a negation is frivolous. But we shall do well to signalise the great difference between such entities and those of which the entity, body, is an example. Let us accordingly divide entities into the two kinds, *vacant* and *non-vacant* entities, putting Time and Space as the great exemplars of the former. I leave it to the

reader to determine in which of these two kinds he will place points, lines, mobile voids, and temporal beginnings and ends.

LXX.

Infimæ species constitute the lowest degree of the scale of kinds. An *infima species* is a kind of which the individuals differ from one another in no important respect, *e.g.* circles of an inch diameter.

CHAPTER X.

MIND.

LXXI.

According to Positivism, Mind is merely either—1st, the consciousness or sum of consciousnesses that obtains at any instant in an individual, or 2nd, the sum of the consciousnesses, both simultaneous and successive, that obtain throughout life in an individual. Their definition transfers the name, Mind, from the subject of consciousness, to which spontaneous generalisation had annexed it, to what that generalisation ranked as the determining attribute,—the consciousness. It implies at least distrust of two axioms, one that mind is a durable thing, the other that consciousness is an attribute. It must be allowed to the credit of Positivism that it is a method originated and in part determined by a revolt of Common Sense. Deduction that proceeds on axioms, after having achieved one great success,—Mathematics,—had betrayed speculation into the labyrinth known as Metaphysics, where it wasted human intellect, while Induction, proceeding on unguaranteed data, was proving itself by its fruits to be the better way. Consequently Metaphysics and its method lost credit with Common Sense, which was

then for confining speculation to the pursuit of unguaranteed knowledge. It would thenceforward have utility and the enablement of precision to be the sole tests of truth. It inadvertently arrogated the liberty of rejecting data inconvenient to its spirit,—those that sloped to Metaphysics. In this its impetus carried it beyond its goal. It could maintain itself on the slope without falling into Metaphysics. It could admit that mind is a concrete or sum of concretes and consciousness an attribute, without rolling into pertinent insoluble questions, saying to these with Horatio,—"It were to inquire too curiously." It has not improved the situation by taking up the alternative that mind is not a durable thing and that a consciousness is not an attribute. I restore the name, Mind, to its old signification. *It denotes a concrete or sum of concretes that either is or involves what lacks nothing essential to a subject of consciousness.* So far as this definition implies, a mind may be material or immaterial, it may exclusively consist of an immaterial subject of consciousness, or of this and the brain, nervous system, and other parts of the organs of sense. It does not imply that the subject of consciousness is a spirit. It consists with the consistent thesis that the subject of consciousness is an atom, which might, in certain relations, be incapable of consciousness, and might be a constituent of an inorganic body. Solidity and extension do not exclude from their subject susceptibilities and powers adequate to the highest exercises of mind. We have conclusive though undemonstrative evidence that knowledge mainly depends upon modifications of the brain wrought by experience, that it is neither more nor less than the relation of the subject of consciousness to such modifications, that knowledge acquired by experi-

ence antecedently to a certain injury to the brain has been superseded or destroyed without any manifest degradation of power to acquire such knowledge anew from like experience. Mind, therefore, it might not unreasonably be held, includes both those modifications and the modified organ. I shall show by-and-by that those modifications, serving as bases or hinges of unconscious knowledge, are in live connection with conscious knowledge,—that, as unconscious equivalents of reasons, they determine conscious knowledge. When this is proved, it must be admitted that bodily organs are constituents of the human mind; not accessories, but constituents. Our definition admits of such a conclusion.

LXXII.

It is obvious that an inception, enhancement, decay, or termination, of an unconscious knowledge, is a mental event;—that, therefore, mental events include unconscious events. Unconscious mental events are not confined to inceptions, terminations, and changes, of unconscious knowledges. They include redintegrative operations, *e.g.* that which in the mind of the burned child inserts the symbol of ardent heat into the immediate object symbolic of the next luminous thing he sees; they include the latent bearing of likeness on the mind, to which, as I shall explain by-and-by, we are indebted for recognition, for the grouping of *minima visibilia* into bodies, and of bodies into flocks, herds, crowds, swarms, etc. They include the latent mental processes which beget our knowledge of primary kinds and our knowledge of our own customs

and of those of our social environment,—processes to be fully explained when I treat of Experience (chap. xiv.), whereof they are species. It is not important, nor would it be easy, to ascertain the *differentia* of mental event. Indefiniteness in respect of it, however, harbours no risk of error.

LXXIII.

Let "propensity" be the common name of all mental qualities that are presupposed by motives, intentions, and actions which proceed upon intention; *e.g.* the appetites, irascibility, fear, reverence, benevolence, conscience, the moral sense, the æsthetic sense.

LXXIV.

Mental qualities, whether faculties or propensities, are things unconscious and unintuitable. Apperception is not cognisant of them. They are knowable only through inference. Their existence is signified, to the illative faculty, by the consciousnesses of which they are the mental causes; *e.g.*, sensations of hunger and thirst and sexual yearnings and pleasures signify to the illative faculty their unintuitable mental causes, the appetites; emotions of anger signify to it their unintuitable mental cause, irascibility; remembrances, their unintuitable mental cause, memory; judgments, their unintuitable mental cause, Reason. Apperception is cognisant of but one durable part of the mind, viz.

the Ego or subject of consciousness; but whether that be material or immaterial, whether the immediate object symbolic of the Ego be a reality or a mere symbol, it is ignorant. To pretend, as Positivism pretends, that consciousnesses comprise the mind, is to deny that there exists a complement of qualities corresponding to our ideas of memory, imagination, Reason, propensity. If there be no such qualities, no differences of the proportions in which they are compounded, in different men, what determines the order of mental events, the regular recurrences of like consciousnesses on like occasions, the constancy of character of the individual mind and its differences from other minds? If the qualities be cerebral, why then, the brain is either the mind or a part of the mind. The existence of the qualities is presupposed by the events, consciousnesses; and the concrete subject of the qualities, whether material or immaterial or a composite of matter and spirit, is Mind.

CHAPTER XI.

SENSATION AND PERCEPTION.

LXXV.

1. THE consciousnesses, hunger, thirst, heat and cold of one's own body, what we are conscious of when relieved of bodily pain, vertigo, nausea, the various thrills that constitute bodily pleasure, are examples of what is commonly denoted by the term, *sensation.* They suppose discernments of which they are respectively objects, but are not given as being themselves discernments. Seeing, hearing, smelling, tasting, and tactile consciousness, are intuitions that are given as being involved in sensations, sensations to which it is essential to be intuitive as well as intuited. We intuite the motions and attitudes of our bodies without sight or touch, also the expressions of our faces, and, when we perceive by means of one of the five senses, we intuite the sense as well as the thing perceived. All these intuitions are given as being involved in sensations. What is common and proper to the consciousnesses to which we give the common name, sensation, is, appearance of being an attribute of the body of the subject. The appearance is such as to make it doubtful whether the consciousnesses be not given as

attributes of composite subjects, each consisting of an inextended Ego or mind and a body; but the datum is decisive as to the human body being either the exclusive or the partial subject. Accordingly, I define Sensation, *consciousness given as being a bodily attribute.*

2. A sensation is given as being an attribute of a part of the body, *e.g.* hunger, of the stomach, thirst, of the throat, vertigo, of the head, visual intuition, of the eye, auditory intuition, of the ear.

3. Consciousnesses that differ from sensation only as being latent, or as being inchoate, I term *vice-sensation.* Pain that survives the self-consciousness of the sleeping patient is an example of the kind, vice-sensations. The latent consciousness that obtains when the eyes are closed in moderate light is also an example. The kind of consciousnesses to which the name, sensation, is commonly applied, is undefinable except upon condition of dividing it into the species which I denote by the names sensation and vice-sensation. This division brings it within the pale of definition, which is of course a gain for science. It exposes an obvious *differentia* of one of the species, viz. the being given as a bodily attribute, and also a *differentia* of the other, which, although obscure, suffices for definition. The genus may be defined, consciousnesses given as bodily attributes, and consciousnesses so resembling these that, although not so given, the likeness binds them together in even a more intimate general union.

4. Let sensation given as being intuitive be distinguished as *quasi-intuitive,* and all other sensation as

unintuitive. The term "quasi-intuitive sensation" does not commit us as regards the question whether sensation do or do not involve discernment.

5. It is essential to sensation to be object of apperception. This it is that differentiates it from vice-sensation. It is sometimes doubly objective. One may have a moderate pain in the foot to which he sometimes attends but is for the most part inattentive: when he attends to it, the sensation is doubly objective, —objective to a perception and an apperception,—to an attentive and an inattentive discernment. The attentive discernment seems to be locally remote from it, as being situated in the head; the inattentive one to be more than locally near it: they seem to be mutually interpenetrative.

6. Let discernment that is given as being involved in sensation be distinguished as sensational, and all other discernment as non-sensational.

LXXVI.

1. Sensational discernment is divisible into sensational perception and sensational apperception.

2. Sensational perception is divisible into *sense-perception, i.e.* perception given as being involved in a sensation of one of the five senses, and a species that may be named *in-looking sensational perception.* When one attends to the expression of his own face, or, without looking, to the attitude of his body, the perception

is given as being sensational, but not as being involved in a sensation of one of the five senses. As being directed inward upon the body of the subject, the perception is fitly characterised as in-looking. Actors and unprofessional mimics have frequent occasion for the exercise of in-looking sensational perception. Attention is essential to it and differentiates it especially from apperception *quâ* discernment of bodily events. We apperceive, as well as perceive, our natural language, and, generally, the motions and attitudes of our bodies.

LXXVII.

1. *Sense-perception* is either attentive or inattentive. We usually attend to but a small part of the field of vision, and one whose mind is absorbed by discourse attends to no part of it.

2. Parts of the body of the subject are sometimes objects of attentive sense-perception, as when a man looks at his hand, and sometimes of inattentive sense-perception, as when a man sees, without looking at, his hand, or, inadvertently clasping his hands, perceives by each the other. According to Buffon, these double perceptions are conditions of the discrimination of self from its environment. Inattentive tactile sense-perception has so much in common with sensational apperception that it takes attention to distinguish between them. Both are sensational inattentive discernments referent to the body of the subject. They differ only in this, that one is, and the other is not, given as being involved in a sensation of one of the five senses, the

tactile sense being understood to include the whole of the sensitive periphery.

3. It is essential to sense-perception to be conjoined with and objective to apperception, by which it is apprehended as a modification of the Ego. The apperception has especially for object, 1st, the perceiving organ, *e.g.* the eye, ear, nose, mouth, or hand; 2nd, the relation of the thing perceived to the perceiving organ, a relation given as proximate cause of the perception; 3rd, the perception, including the sensation in which it is given as being involved. These are the objects that are extinguished when, owing to ecstasy, apperception is in abeyance and sight persists. Philosophy has all but ignored them. They were noticed by Plato and Aristotle, but no place was assigned to them in the system of Kinds.

4. The immediate object of ordinary sense-perception consists of two constituents, of which one is, in respect of the other, cardinal. The cardinal constituent is either—1st, solidity, including extension and figure, or, 2nd, colour including extension and figure, or, 3rd, sound, or, 4th, flavour, or, 5th, odour. The dependent constituent is an attribute or sum of attributes which scrutiny finds to be intangible, invisible, inaudible, and neither a flavour nor an odour, *e.g.* the symbols of identity, durability, power, thickness, the life and consciousness of others. When we interrogate the mind as to whether these objects are indeed objects of visual, auditory, olfactory, gustatory, or tactile intuition, a negative datum emerges. Sense disavows all but the card l constituents of sense-perception. The 'o the datum. To

say that one sees the identity involved in the object of a visual perception would be to violate usage. It is agreeable to common sense to distinguish sense-perception into two parts, one which may be termed its cardinal part, corresponding to the cardinal constituent of its object, the other, which may be termed its dependent part, corresponding to the dependent constituent of its object. Colour is the cardinal part of visual perception, and discernment of whatever over and above colour extension and figure is objective to the perception, is its dependent part.

5. The dependent part of the object of sense-perception is derived from one or other of two sources, one redintegration, and the other a faculty hitherto unrecorded. This faculty, as supplying immediate objects or constituents of immediate objects beyond the scope of sense intuition, may be denoted the *supersensuous faculty*. It contributes to the dependent part of the object of sense-perception such constituents as the symbols of identity, durability, power, thickness, and of the life and consciousness of others. Indeed we owe to it the idea of the third dimension whether in void or thickness, for the experience which occasions the idea does not account for it as being an object of sense. Redintegration contributes to the dependent object of sense-perception such constituents as the symbol of solidity annexed to colour when a solid is visually perceived, or the visual aspect of an unseen speaker when he is heard. It furnishes the complements of immediate objects of which only parts bear directly upon sense, as the unseen parts of a seen man or tree or house.

LXXVIII.

The constituents furnished to the objects of sense-perception by the supersensuous faculty occasioned the scepticism of Hume and the elaborate system of Kant. They justified scepticism by refuting the doctrine of Natural Realism; but they afforded no ground for the doctrine of knowledge *à priori*. If knowledge of power is, as Kant pretends, to be accounted *à priori* because a reality answering to the idea of Power is not immediately objective to sense-perception,—to what Kant terms the internal sense,—knowledge of thickness should also be accounted *à priori;* but matter is thickness (is given as being thickness), and therefore knowledge of matter should be accounted *à priori,*—which leaves nothing worth notice to be object of knowledge *à posteriori*. Thickness is hidden from sense behind its surfaces. The mental symbol of it is as much the product of the supersensuous faculty as the mental symbol of power.

LXXIX.

The datum that certain sensations are discernments may be false, but the falseness of the seeming does not prevent its being a valid and useful *differentia,* serving as a line of demarcation in the map of generalisation. As affording a basis of descriptive terminology, it may be a means of proof of its own falseness.

LXXX.

1. The foregoing definition of sense-perception is amenable to the objection that it supposes a species of hallucination to be a species of sense-perception. In dream and waking hallucination we have perceptions that are given as being involved in sensations of one or other of the five senses, whereas no reality corresponds to the immediate objects. According to the definition, this discernment belongs to the kind, perception; we see, hear, smell, taste, and undergo tactile consciousness, in dreams, and in waking hallucination. Psychological classification has ignored the relation of hallucinative exercises of the senses to sensation, but spontaneity has classed them conformably to our definition; for it is common to speak of seeing, hearing, smelling, tasting, and touching, in dreams. The name "visionary" implies that perception comprehends the species, hallucinative perception.

2. Hallucinative and non-hallucinative perception present to apprehension no marks by which they are immediately distinguishable. It would seem, at first sight, as though there must be such a mark, since dream, when remembered, is apprehended as hallucination. But this apprehension is immediate; it is not caused by a sign. It resembles, in this respect, immediate identification. One does not at first remember the events of the dream as realities, and then infer from a sign that they are mere fictions; they are given, from the first, either to memory or to a faculty that coalesces with memory, as fictitious. Hallucinative and non-hallucinative perception, therefore, con-

sidered as mere consciousnesses, exhibit no intrinsic difference. They are rudely distinguishable by a circumstance that attends hallucination, viz. that it is commonly given to memory and to the observation of others as hallucination. I accordingly define Hallucinative sense-perception, *sense-perception differentiated by deceptiveness that tends to become soon obvious.* Hallucination I define, *deceptive sensational discernment of which the deceptiveness tends to become soon obvious.* It comprehends the two species hallucinative sense-perception and hallucinative in-looking sensational discernment. Men who have lost a limb sometimes undergo an in-looking sensational discernment of a fictitious substitute.

3. Sensational deceptiveness is not confined to hallucination. When sense-perception gives the reality perceived as immediate object; when it gives colour, sound, flavour, odour, cold and heat, as things that are not consciousnesses; when it gives the earth as being a plane, the sky as a crystalline vault, the moon as a circular disc of a few inches diameter; when it gives the like as the same and masks succession under the appearance of duration;—it is deceptive, but there is no tendency in the deceptiveness to become soon obvious: on the contrary, the detection of it is in every civilisation a late achievement.

LXXXI.

When it was discovered that the immediate objects of sense-perception are unreal, colour, sound, odour and

flavour were indiscriminately classed as sensations, those of them that are given as attributes of things different from the perceiving organ as well as those that seem to be such attributes. The influences tending to beget this confusion were certainly strong. To the scientific mind it was obvious that consciousnesses of both kinds are products of bodily organs, and the general bond that connects flavour with flavour, sound with sound, etc., is so intimate, that it tends to mask any difference demanding a general separation. But dependence on a part of the body of the subject scientifically discerned is one thing, and the seeming of dependence that determines the kind to which the term, sensation, was originally annexed, is quite another. The seeming is wanting to certain consciousnesses to which science correctly imputed the dependence. Accordingly, prior to discovery they were not accounted sensations, and to class them as sensations is to supplant the *differentia* that originally determined the kind,—indeed still determines it for the unscientific. If this *differentia* be suppressed, if we beg in the term Sensation the affirmative of the question mooted by the idealist and answered by him in the negative, we debar ourselves from the use of the term in our dispute with him. Our definition of the term not only restores it to its original signification, but conforms to the rule of giving philosophy and science a system of terms unencumbered by seriously questionable connotations. The definition does not imply that there is not a kind correctly denotable by the name, flavour, which comprehends both sensations and non-sensational consciousnesses, nor does it imply that there is not a kind of consciousnesses differentiated by dependence for existence upon a part of the body of the subject, a kind

that comprehends both sensational and non-sensational consciousness. The kind which I denote by the name, Sensation, excludes those of them that are given as attributes of things perceived by sense, and includes those that are not so given; it excludes the red of the rose, the sound of the flute, the odour of the violet, the flavour of the wine; it includes the bad odour and flavour which a disordered digestion sometimes occasions, the sounds termed "ringing in the ear," the luminous crescent caused by pressure upon the eyeball, the colours, sounds, odours, flavours, and tinglings excited by an electric current that traverses a certain part of the brain.

LXXXII.

Intuition of life and consciousness other than our own has not received from philosophers the attention it deserves. They have put us off with the shallow hypothesis that, observing the resemblance of other men and of the lower animals to ourselves,—how they have organs of sense like our own, and leave a state of rest as we do without being compelled into motion by the action of another body,—we, in accordance with the law of belief which gives the unobvious like as inhering in the obvious like, impute to them the like of the life and consciousness which we experience in ourselves. Now, the natural language of the mother elicits from the infant such signs of cordial intuition of the emotions from which it proceeds, that we must suppose the infant to be at least vaguely intuitive of those emotions, and therefore of the life and consciousness of the mother. But no such natural language

had previously obtained in the infant, so that he could not know, by experience of anything occurring in himself, of the connection of its signs with such or such emotions, nor therefore that the signs exhibited by the mother resemble signs that had obtained in himself. Moreover the experience of the infant affords him no such idea of his own form as to enable a discernment of the resemblance to it of other forms. It is highly probable that the natural language of our own species has the property of causing intuition of the emotions from which it proceeds independently of any prior mental event, and therein of life and consciousness other than those of the subject. But this does not sanction the judgment that intuition of life and consciousness other than those of the subject is thus originated, for we intuite the life and consciousness of the lower animals without the aid of natural language. There is no inconsistency in the hypothesis, that we at first impute life and consciousness to all bodies, and that the intuition of certain things as inanimate is a product of experience. The occasional behaviour of children and of savage adults to inanimate things gives some countenance to this hypothesis; the worship of stocks and stones and the tendency to prosopopeia also lend it countenance. We are not here concerned to find a solution of the question. It is enough for us to establish that our knowledge of the life and consciousness of others is intuitive, not achieved by means of comparison or inference. This being established, it follows that the intuition which originates the knowledge is sense-perception. We perceive life and consciousness, and perception of the inanimate supposes the percipient to be aware that the object is without life and consciousness. Symbols of life and conscious-

ness are occasional constituents of the object of perception.

LXXXIII.

Space and Cosmos are constant objects of sense-perception. The perception is necessarily inattentive. If we endeavour to make space and Cosmos objects of attentive sense-perception, we find ourselves attending to mere ideas of them. Space and Cosmos are given to sense-perception as the *habitat* of all its other objects.

LXXXIV.

Certain sensations are given as involving desire, *e.g.* hunger, thirst, the sexual sensation, the sensation consequent to suspension of breathing. Pleasing sensations that do not menace departure, *e.g.* warmth, sensations constituting or incident to relief, the sensation caused by agreeable muscular exertion, are given as not involving desire. Certain sensations are given as involving neither pain, pleasure, nor desire, viz. those to which no uneasiness succeeds.

LXXXV.

Appetite is the common name of certain of the sensations that are given as involving desire, *e.g.* hunger, thirst, the sexual sensation. The name is limited to

those that are of periodic recurrence. The most notable are hunger, thirst, and lust; but the craving for rest when we are fatigued, for exercise when the supply of animal force is ample, for sleep during a considerable part of the twenty-four hours, are readily allowed to be appetites. If the animal economy in man were such that the need of respiration should occur only at periods separated by intervals of three or four hours, and the need were manifested by the sensation by which it is now manifested when respiration is suspended for a few seconds, that sensation would be accounted an *appetite.*

CHAPTER XII.

APPERCEPTION.

LXXXVI.

1. WHAT is denoted by the term, *apperception*, has been confounded with a species of perception which Locke denoted by the name, "reflection." He says of it, "though it be not sense, as having nothing to do with external objects, yet it is very like it, and might properly enough be called 'internal sense.'"[1] He implies that attention is essential to "reflection," imputing the child's ignorance of psychical event to his inability as regards reflective attention. Reflection, he implies, attentively inspects such mental events as perception, thinking, doubting, believing, reasoning, knowing, willing,[1] and so begets knowledge of them. According to Ancillon,—"The reflective Ego . . . is never developed in the majority of mankind at all, and even in the thoughtful and reflective few it is formed only at a mature period, and is even then only in activity by starts and at intervals."[2] This sentence is opportunely cited by Sir William Hamilton, and that it implies what agrees with his theory of Reflection is cor-

[1] *Human Understanding*, B. II. chap. 1, sec. 4.
[2] *Metaphysics*, Lecture XIX.

roborated by his remark that "The faculty of self-consciousness corresponds with the Reflection of Locke."[1] This remark, in view of his doctrine that self-consciousness is essential to consciousness,[2] exposes the viciousness of the confusion of apperception with reflection; for it implies that consciousness is wanting to the majority of mankind.

2. *Reflection* is perception given as having for immediate and sole object a consciousness of its subject. It is essential to it to be attentive. If such a thing were possible as an inattentive reflection, it would not be distinguishable from apperception, and philosophy could know nothing about it. Unintuitive sensations and unintuitive emotions endure its gaze, but not discernments. It sometimes surprises and is surprised by a discernment, but the object seems to vanish at the instant it is seen. Whether there are men who have the power to watch their intellectual operations and the discernments involved in discourse, —in remembering, imagining, etc.—the writer is ignorant; but that there are none such seems to be proved by the meanness of the results of psychological speculation. There seems to be no room in the mind for a study of discernment. The aversion of discernment to be attentively discerned is shown by the fact, that when reflective attention is turned upon an intuitive emotion the intuitive element of the emotion vanishes at once, leaving a part that tends to recover the element so soon as reflection withdraws its eye. An irascible person who aims at conduct may profit by the mental law under which this curious kind of fact obtains. If he watch the emotion, anger, he occults its object, and,

[1] *Metaphysics*, Lecture XXIX. [2] Lecture XI.

deprived of discernment, the emotion tends to decline and perish. If he persist long enough the emotion dies. If he cease to stare at it before it has lost its intensity, it is sure to recover its object and its first force.

3. Reflection watchful of the spirit of its subject that he may keep it pure, has an important function in what is known as the spiritual or interior life. It speedily discovers to the ascetic those of his instincts that are opposed to the Christian spirit. One of the first striking results of Saint Theresa's surrender to her vocation was her psychological enlightenment; nor is this wonderful, seeing that the instincts symbolised by the Christian trinity of evil, the Devil the World and the Flesh, must expose themselves in strife with the new spirit.

4. No mental exercise is more fatiguing than reflection. It differs greatly in this respect from apperception, which is as little fatiguing as breathing or the pulsation of the heart.

5. Reflection has been confounded with philosophic study of ideas of kinds of mental events,—a study that is the immediate source of psychology. Apperception of mental events begets ideas of corresponding kinds, *e.g.* of the kinds, perception, remembrance, imagination, judgment, as experience of event exterior to consciousness begets ideas of motion and rest, force and inertness, action and reaction, birth, growth, and death. The mind is not a conscious party to the production of either set of ideas. Between the conscious experience that begets them and their inception there

intervenes no discourse. They are the offspring of a latent action of the mind fecundated by conscious experience. The study of these concepts, whether of those that are symbolic of mental events or of those that symbolise unconscious events, is not an exercise of reflection. The judgments which it engenders, and in which are explicated what is either obviously or unobviously implicit in the concepts, do not derive from reflection. The study is occasionally interrupted and assisted by an experiment on the mind which sometimes has the effect of freshening, augmenting, retrenching, or in some way correcting, one or more of the concepts studied. We set Reason, memory, or imagination, to work in order to study afterwards the *record* of the operation,—not to study the operation while it is proceeding. It is the connection of this kind of experiment with the study of ideas of mental event that causes the confusion of both study and experiment with reflection and self-consciousness. This, by the way, exposes the futility of Comte's objection to psychology as being the product of a mere counterfeit of observation. The psychologist, he maintains, is confined to the method of attempting to observe his mental operations while the faculties are at work, which he correctly holds to be abortive; and, with this error, he is for scourging psychology out of the temple of science.

6. When one reflects, he is inattentively aware that he is reflecting, *i.e.* a reflection is always attended by an apperception. This contrast puts in the most striking relief the difference between the two.

LXXXVII.

Apperception, *quâ* referent to a consciousness, may be distinguished as psychical, and, *quâ* referent to a bodily event, as corporal.

LXXXVIII.

Apperception does not acquaint us with the structure of the mind; it acquaints us with no mental quality except the existence of the subject of consciousness. All other mental qualities are unintuitable. Apperception acquaints us with certain mental events, with consciousnesses, but not with the mental attributes which they presuppose,—for example, with remembrance but not with memory, with imaginations but not with the faculty, Imagination, with conceptions but not with the conceptual faculty, with judgments but not with the faculty, Reason, with motives and intentions but not with a moving or intending faculty,—not, if there be such a thing, with Will. How penuriously knowledge of the mind—knowledge that can afford to be brought to book—is imparted to us, is evinced by the opinion, now obtaining ascendency amongst philosophers, that the immediate object which passes for the Ego is not a reality but a mere modification of consciousness.

LXXXIX.

The immediate object of apperception that passes

with it for the Ego or subject of consciousness, is it real? To Descartes the affirmative seemed to be an axiom, and the pivot of all guaranteed knowledge. It is the support of his famous argument, *Cogito ergo sum.* The affirmative is a datum; but its pretence to be an axiom is not universally allowed. To certain minds the idea of subjectless consciousness does not seem to be inconsistent. Indeed, by perhaps the majority of modern physiologists, consciousness is implicitly held to be subjectless. They hold it to be an effect of ganglionic, cerebral, or other corporal event, but not an attribute of a bodily organ or organism in such a sense that the organ or organism could be supposed to be conscious. If this be true, the immediate object of apperception given as being the Ego is not real; nor is it a true symbol. If it be held that the symbol is true because the organ or organism corresponds to its significance as the thing signified, it is only partially true. It is untrue in so far as it symbolises the remote object as being, not only a source or cause, but also, a subject of consciousness. Admitting that there is a subject of consciousness,—a thing that, besides being a source or cause, is also a subject, of consciousness,—it does not follow that the immediate object of apperception which passes for the Ego is real. When a patient who during sleep undergoes unapperceived pain awakes and apperceives the pain, the immediate object of the apperception may consist of a real and an unreal object, viz., the pain, and a *symbol* of the subject of the pain. The idea of cerebration causing in the soul a pain and with it a symbol of a subject of consciousness, is not inconsistent: therefore the datum, that the immediate object of apperception is real, is not guaranteed—is not an axiom. We seem to be at

present without means of ascertaining whether the datum be or be not true. Here we have striking proof that inconsistency of the opposite is not an indefectible guarantee. Until physiology exposed the dependence of consciousness on corporal event, the thesis, that the immediate object of apperception is real, seemed to be an axiom, and now it is manifest that the seeming is merely specious, and that its speciousness is determined by privation of a thesis—by poverty of philosophic imagination. (§ xx. 3.)

XC.

Experience affords no example of apperception without sensation. It must therefore be conceded to the materialist that, in all probability, sensation is a *sine qua non* of apperception,—that the unconscious "mento-corporal" event which causes the one necessarily causes the other.

CHAPTER XIII.

EMOTION.

XCI.

1. EMOTION is *consciousness involving either pleasure or pain, and given as having the heart for its habitat,* but not as its subject. It differs from sensation only in the respect that it does not seem to be a bodily attribute. Its difference from sensation is put in sharp relief when events that usually cause painful emotion cause instead a sensational pain in the heart. Pain, pleasure, and desire, are proper to sensations and emotions.

2. Certain emotions are given as being perceptive, others as being imperceptive. The datum that gives emotion as being perceptive is so obscure that its exposure had to await the advent of Hutcheson, but, once detected, it is easily made plain to all the world. The attribute, sacredness, is no more empirically knowable apart from an emotion of reverence, the attribute, beauty, apart from an æsthetic emotion, the attribute, duty, apart from a moral emotion, than light is empirically knowable by the blind. Fear is essential to the empirical perception of danger, a peculiar emotion of

approbation to that of nobleness, a peculiar emotion of aversion to that of vice.

Emotive perception is what is denoted by the name *sentiment.* One may have an unemotive knowledge or belief and a heart-knowledge or sentiment of the same thesis, *e.g.* that there is a God; that the moral imperative is the will of God; that an enemy who has insulted and otherwise injured the subject, as not having achieved personality and therein power of choice, is a proper object of pity, not of censure or resentment; that the retributive spirit is a stultifying devil, which makes a hell upon earth, and, without impairing the efficiency of civil surgery, should be drowned in charity. When, in the change known as "change of heart," the heart *discovers* what was previously known only to the intellect, the discovered thesis is not *recognised,* and the discoverer learns with surprise that it is possible for one to discover what he knew before. Heart-knowledge of the deliverances of revelation is what Christendom terms *faith.* The emotive element of the knowledge is quantitative, so that those in whom it is greater seem to know better. Under certain circumstances, *e.g.* those which give occasion for obedience to divine command, it is an incentive, and either instigates, or, as motive, solicits the will. This explains the relation of faith to works in virtue of which works are the measure of faith. It will appear by-and-by (§ clxxix.) that wisdom is a high degree of heart-knowledge of moral law, and that "as a man thinketh in his heart so is he."

3. By the way, the immediate objects of emotive perception are a species of aspects which, on account of their dependence on emotion, may be termed emotive

aspects. The discrimination of the species enables controversy respecting the foundation of morals to come to close quarters, instead of making passes in the dark altogether wide of the mark. Those who insist upon the absoluteness of the moral imperative must allow that it is knowable only by a contingent aspect which depends upon the emotive constitution of the person knowing. Is that aspect a phantom of the heart unrelated to the absolute?—or is it a face of the absolute determined by its contact with the contingent?

XCII.

1. When treating of Wisdom (Bk. III. chap. iv.) I shall have occasion to refer to a species of sympathy that has not been hitherto noticed. On this species and a kind of emotion on which it depends, we have now to bestow a moment's attention. Sympathy is emotion caused by what seems to be the emotion or sensation of another, and having a tendency to dispose to kindness; *e.g.* pity, and convivial emotion. The ascription of emotion or sensation to another being is a condition *sine qua non* of sympathy. Sympathy is divisible into that which does, and that which does not, arise out of concurrence of emotions of the same kind. Conviviality is sympathy that arises out of such a concurrence: pity for one in pain is sympathy that does not so arise. Let sympathy of the former kind, as being conditioned by homogeneity of emotions, be distinguished as homogeneous, and sympathy of the latter kind as heterogeneous. Sympathy is further divisible into that which does, and that which does not, either

beget or enhance a feeling of fellowship. Homogeneous sympathy always excites such a feeling. Not so heterogeneous sympathy. Pity for a lower animal in pain has no tendency to cause or enhance such a feeling.

2. There is reason to believe that the immediate object symbolic of the emotion which we intuitively ascribe to another is for the most part agreeable. There are people who, without sympathy or antipathy, have pleasure in the intuitive ascription of emotion to others. Many who seem to be incapable of sympathy have pleasure in the intuitive ascription of emotion caused by the drama and by romance. This it is, probably, that throngs the scaffold and constituted the bad pleasure with which a Roman watched a shipwreck from his villa. Poets, dramatists, and writers of romance, have an exceptional power of imagining the emotions of others, and, apart from sympathy, have pleasure in its exercise. Men who are greatly swayed by public opinion sometimes seem to imagine the censure of which they take themselves to be the objects by means of a vicarious emotion, in which, as though they were a part of the critical public, they condemn themselves. It is probable that the power of worldliness is due to such vicarious and symbolic emotion. I do not risk much in taking for granted the existence of what I shall term *ascriptive emotion.* Heterogeneous sympathy depends upon ascriptive emotion.

CHAPTER XIV.

EXPERIENCE.

XCIII.

1. If *experience* were defined, event involving a relation of a mind to a reality in virtue of which the reality is immediately objective and known to the mind, the definition would correspond to the common notion of experience. This notion supposes the mind to embrace as it were and penetrate the reality, and, so, to have it for object and object of knowledge. The supposition received a shock to which it has since succumbed when physiology detected the series of nerve and cerebral changes that intervene between peripheral contact and consequent sense-perception. That a cerebral event, and not a proximity of the thing perceived, should be the proximate cause of sense-perception, discredited the datum of immediate objectivity of reality in the foremost species of experience. When Hume showed, or seemed to show, that power or cause could not be immediately objective, the idea of it was transferred from the kind ideas *à posteriori* to the kind ideas *à priori*, so intimately connected were ideas imputed to experience with immediate objectivity of reality. But the common notion of experience,

although it supposes that kind of objectivity to be intimately connected with, does not suppose it to be essential to, experience; for the notion, although profoundly altered by proof that, certain consciousnesses excepted, reality is never immediately objective, has, in philosophic minds, survived that proof. What then is the *differentia* of Experience which contributed to determine the idea of it prior to the physiological discovery, and now determines the philosophic idea of it? To answer this question it is necessary to distinguish and name two species of knowledge that have hitherto escaped notice.

2. Let knowledge that originates in a ratiocination, and refers to an object other than the ratiocination, be distinguished as ratiocinative;[1] and all other knowledge as "irratiocinative." (I make free to enlarge the synonyms, Ratiocination and Reasoning, and their cognates, from the narrow signification to which contrary to a law of language they have been confined, and to use them as denoting every exercise of Reason, its barren scrutiny as well as its most fruitful deduction or induction.) Knowledge of infinity, as originating in an act of Reason and not having the act in which it originates for object, is an example of ratiocinative knowledge; on the other hand, knowledge of the judgment that originates knowledge of infinity, is an example of irratiocinative knowledge. Again, knowledge of the guilt of John, inferentially originated, is ratiocinative, and knowledge of the originating inference is irratiocinative.

[1] To distinguish this kind of knowledge as "judicial" would be preferable, but that it would commit us to a contradiction in terms, viz. that in one of its aspects a judgment might be non-judicial.

3. I call attention to the foregoing division of knowledge and the terms it occasions in order to provide verbal material for a definition of Experience. A judgment *quâ* source of knowledge of itself is an experience, and, if it originate a different knowledge, *quâ* source of that knowledge it is not an experience. When evidence originates knowledge in me of the guilt of John, the judgment in which the discovery obtains, *quâ* source of knowledge of the guilt of John, is not an experience, whereas *quâ* source of knowledge of itself it *is* an experience. By confining the signification of the term Experience to irratiocinative knowledge, we exclude from the kind, experience, agreeably to the common and philosophic idea of it, judgment *quâ* source of knowledge of something other than itself, and we place in the kind the self-same mental event *quâ* source of knowledge of itself. Remembrance and hallucination, like ratiocination, overlap as it were and hide a part of the boundary of experience. Considered with reference to its object a remembrance is not an experience, but, considered as source of the knowledge of which it is itself the object, it *is* an experience. As not originating the knowledge of its object it is not experience; for it is essential to experience to be originative of knowledge. Hallucination considered with reference to its object is not experience, but, considered as source of the knowledge of which it is itself the object, it is experience. Dreams are experiences of dreaming,—the source of our knowledge of that kind of event,—but, because their objects are not realities, considered with reference to those objects they are not experiences.

4. Knowledge, to be empirical, must be, not only

irratiocinative and non-hallucinative, but also, uncommunicated by the expression of another. Knowledge communicated by one man to another, whether by doctrine, testimony, or expression of any kind proceeding from intention to communicate, is not the immediate and pure offspring of experience.

5. What is proper and common to all species of events that have been classed together under the name Experience is, origination of irratiocinative non-hallucinative uncommunicated knowledge. This is what *is* the *differentia* and has been a part of the *differentia* of things denoted by the name Experience. Accordingly, I define Experience, *mental event that originates irratiocinative non-hallucinative uncommunicated knowledge.*

XCIV.

The experience of which reasoning and remembrance are at once the sources and objects is apperceptive. Experience of hallucination is partly apperceptive and partly perceptive. The subject is one that deserves an attention and analysis not hitherto bestowed upon it. The apperceptive part of the experience obtains contemporaneously with the hallucination, the perceptive when the hallucination is first remembered. The perceptive part of the experience is mnemonical, at least it is involved in a remembrance. While we dream the dream events are given to apperception as real: to the first remembrance of them they are given as figments of imagination. Without the corrective action of the remembrance the experience needful for the origination of knowledge of the hallucination is incomplete.

XCV.

1. Experience, according to the common notion of it, is event which the mind consciously undergoes, *e.g.* sense-perception; but latent mental processes are concerned in begetting knowledge which that notion ascribes to experience. Knowledge of primary kinds (§ lxvi.) originates in experience which consists of a conscious and a latent part. The conscious part acquaints us with individuals, not with a kind, not with a sum given as comprising all the like of a given type. There needs a mental event other than mere experience of individuals, *e.g.* mere sense-perceptions or apperceptions, to group, as it were, the mental symbols of individuals into sums, and annex to each sum the aspect of comprising all the like. *A latent mental process causes an equivalent of such a grouping and annexation, and perfects in the unconscious region of the mind an equivalent of an idea of the kind. Primary kinds made known by experience alone are unconsciously known before they are consciously known—before ideas of them obtain.* Knowlege of primary kinds originates thus unconsciously during adult life long after we have become capable of distinctly noticing our conscious mental processes, especially when one travels into remote lands and makes acquaintance with new species. We do not always discriminate the specific attributes of the strange species which then become known to us, nor are we conscious of a discourse constructive of ideas of the species. We are unconsciously, before we are consciously, cognisant of them. Another notable example of latent experience is experience of indistinct instances or those

that, apart from question of any general thesis, bear on the mind so as to cause knowledge of the truth of such a thesis, *e.g.* of the general connection of whiteness with the other attributes usually discerned in swans; of that of combustibility with the other attributes of coal, wood, and turf; of that of the hunger-appeasing property of food with its other attributes; of that of the thirst-appeasing property of water with its other attributes. *A latent process consequent to such experience begets unconscious knowledge of the corresponding general truths, e.g.*, that swans are white, that coal, wood, turf, etc., are combustible. *Such knowledges have been hitherto held to be the offspring of inference, and have been accounted inductions.* Knowledge of natural signs, *e.g.* symptoms, weather-signs, physiognomical signs, originate in experiences which involve the operation of the latent mental event known as redintegration. Hectic, for example, having frequently borne on the mind in connection with other symptoms of consumption, is, through the action of redintegration, when it appears alone, apprehended as a *sign* of consumption. Weather signs and signs of human character have a similar origin. Knowledge of dream originates in experience that involves a latent constituent. Dreaming is a part of the experience that begets the knowledge, but only a part: the complement is a latent mental event of a noteworthy character; it clothes the thing known with an attribute which shows itself to remembrance as hallucination. What seems to the dreamer while dreaming to be a real event seems to his remembrance to have been a figment. Experience therefore extends beyond the sphere of events which the mind consciously undergoes. In Chapter II., Book III., I deduce from familiar mental events the occurrence of unconscious mental

events and the existence of an unconscious part of the mind. The facts were as familiar at the dawn of philosophy as they are to-day, without a suspicion on the part of philosophers that an important part of knowledge originates as unconscious knowledge. The possibility of unconscious mental event was not imagined, and privation of power to imagine it gave an air of necessary truth to false theses respecting the origin of certain species of knowledge. Knowledge of primary kinds was supposed to be due to discrimination of *differentiæ* which refused to show themselves to the eye of philosophy, and certive knowledge (§ xvi.) due to unconscious intuition was imputed to elaborate discourse of the illative faculty.

2. Let experience that consists of latent processes be distinguished as latent, and the opposite species as manifest. Latent experience is always supplementary to manifest experience.

3. Let latent experience consequent to experience of instances be distinguished as *quasi-inferential*, and let the knowledge it begets be also distinguished by the same term. It is important to stigmatise, by this epithet, the deeply-rooted error that mistakes for inference a species of experience.

An exposition of a species of experience which I distinguish as experience of time-series calls for definitions or explanation of the terms, duration, time-series, and motion.

XCVI.

1. Duration is *coincidence of the same with a divisible part of time or with all time.* It is a species of what may be termed time-coincidence. This genus is comprised by the two species, duration, and what may be denominated serial coincidence with time. The coincidence of a man with the time between his birth and death is an example of duration, that of a melody with a part of time exemplifies serial time-coincidence. Time, duration, and serial time-coincidence, have a common and proper attribute to which no name has been given; they are congeners of a nameless genus. Analogously, space and the extended things it contains have a common and proper attribute, —are congeners of a nameless genus.

2. Let series that coincide with a divisible part of time or with all time be denominated *time-series*, and let event that is merely instantaneous be denominated *non-serial* event. Every point in space and every divisible part of space is an absolute place. It is a place by virtue of its relation to other points and parts of space, and absolute because it and they and the relations between them exist of necessity. A series of absolute places comprising all such places within its limits is continuous. A motion is *coincidence for an instant with each place of a continuous series of mutually equal, absolute, places, without the intervention of a divisible part of time between any two of the instants.*[1]

[1] I here indicate rather than express what I take to be a truth: I do so by means of two inconsistent theses, one that two instants un-

3. The foregoing definitions prepare us for a definition of a species of experience which research has not hitherto had occasion to bring into view. Experience of time-series, *e.g.* motions, music, days, nights, seasons, customs, comprehends a species of which the *differentia* is, that the whole of the object seems (inconsistently) to exist at the present instant; *e.g.* motion that seems to be occurring at the present instant, increase of light, heat, pleasure, or pain, that seems to be occurring at the present instant. When we watch the flight of a bird, a part of the flight seems to be occurring at the present instant, and a part to have occurred prior to the present instant. Experience of this pre-present part exemplifies the species of experience opposed to that which I am putting in relief. All experience of time-series save what refers to those that are extremely brief, *e.g.* a flash of forked lightning, consists of experiences of both kinds, one referent to a series given as occurring at the present instant, and the other as referent to a series given as having occurred prior to the present instant. The whole object, if the time of the experience do not exceed a few seconds, seems to be contained in a larger present of which the present instant seems to be the term. Let us distinguish these two species of experience, the one as *paradoxic*, because it apprehends as occurring at an instant what coincides with a divisible time, the other as *anti-paradoxic*.

divided by a time are possible, the other that two mutually continuous places undivided by a space are possible. In my explanation of motion the two inconsistencies are opposed and cancel each other. The explanation is a *pis aller*, but in the region of the antinomial we have no right to be fastidious.

XCVII.

Experience of time-series supposes an immediate and a remote object, and that the beginning of the immediate object either coincides in time with the end of the remote one or is altogether posterior to it. For illustration of this truth as regards paradoxic experience let us consider a paradoxic experience of motion. To see a motion either is or involves the seeing at an instant what coincides with a divisible time. Divide the time of any extremely brief visible motion into the five equal parts A B C D E. The motion cannot be seen during the time A, for the parts of it that measure B C D E have not yet obtained. It cannot be seen during the time C, for that which measures the time A has ceased and the parts which measure D E have not yet obtained. It follows that the whole of the motion is not immediately visible at any instant whatever, and that the immediate object of the perception must be unreal, must be a mental modification serving as vicar or symbol of a remote object, viz. the motion, and that the beginning of the immediate object must be either coincident with or posterior to the end of the remote one. Several successive perceptions, each having for object a part of a motion, however rapidly one may follow another, are not a perception of the motion, and, if a perception of the motion obtain, it must be by means of a modification of consciousness symbolic of the motion,—an immediate unreal object symbolic of a remote one. The several perceptions are no more a perception of the motion than vision which discerns every object in its field is perception of the

field of vision. The field of vision is invisible. Paradoxic experience of intensification of pain also illustrates the dependence of experience of time-series on an immediate object vicarious of a real and remote one; for, when the greater of the contrasted degrees of pain obtains, the less has ceased to exist, and must be symbolised in the contrast by an unreal and vicarious object. As regards anti-paradoxic experience the truth is obvious, since it is essential to the object of this kind of experience to include what the subject knows to have ceased to exist, *e.g.* any pre-present part of a bird's flight observed during two or three seconds.

XCVIII.

Paradoxic experience on which an anti-paradoxic experience depends acts upon the mind somewhat as the pencil point with which a crayon picture is made acts upon the paper. Each modifies what it acts upon, and the series of its actions is the antecedent and cause of a modification different from what is caused by any unit of the series,—in the one case a picture, in the other the object of an anti-paradoxic experience: a single impact of the pencil point causes a dot, not a picture; a single bearing of the paradoxic experience causes not the object of the anti-paradoxic experience, nor one resembling it, but an object resembling a minute part of it. In all probability the analogy fails in this respect, that the dot is a durable thing and a constituent of the picture, but the product of the paradoxic experience is not a durable thing nor a constituent of the object of the anti-paradoxic experience. The metaphor

which puts the mind as being a *tabula rasa* on which experience depicts is not to be mistaken for a literal expression of fact. It is not to be supposed that when we remember an object of experience we discern a durable modification of the mind. Of course a durable modification of the mind caused by the experience generates the immediate object of the remembrance, but the object is one thing, and the modification another; the one is fugitive, the other durable; the one is the equivalent of an organ,—an equivalent fashioned by the experience,—the other an effect of the function of that equivalent. This I put now as extremely probable; by-and-by (Book III.) I shall show that it is certain.

XCIX.

Anti-paradoxic experience comprehends a species of which the peculiarity is, that its objects exclusively consist of parts specifically like their wholes and counterparts of objects of the related paradoxic experiences: it also comprehends a species of which the objects include parts unlike any of the objects of anti-paradoxic experience. A visual experience of the flight of a bird during five seconds is an example of the first of these two species: the whole of the motion consists of motions that were objects of the paradoxic experiences on which the anti-paradoxic experience depends. Experience of a dream or of a Kind is an example of the second. The objects of the paradoxic experiences on which the experience of a dream depends include nothing like the fictiveness; on the contrary, their objects are given as being realities. The objects of the paradoxic experi-

ences on which experience of a Kind depends includes nothing resembling an idea of the general.

C.

Knowledge of individuals of the kind, Custom, is the product of latent experience, and is at first unconscious. Custom being a time-series, I forbore to treat of its relation to latent experience until I had treated of those series. All of us are cognisant of our own customs before they become objective to us, and many of the customs of the society we frequent are likewise unconsciously known before they are consciously known. Equivalents of ideas then are evolved in the unconscious part of the mind by latent experience. Analogy warrants a strong presumption that knowledge of the *kind*, custom, obtains unconsciously in advance of a concept of the kind. The discovery that knowledge of custom originates unconsciously gave a certain speciousness to the thesis, that knowledge of such series as the tide, the succession of day and night, that of the seasons, is also at first unconscious,—a speciousness that detained and had wellnigh prevailed with me. These series first become known as objects in the field of retrospect, objects mirrored in expectation. Paradoxic and anti-paradoxic experience, helped by redintegration, modify the mind, *quâ* organ of retrospect and expectation, so that the organ generates an objective field consisting of such series.

CI.

1. How superficially experience has been studied is evinced by the doctrine of Locke, that it is comprised by the two species, sensational intuition and intuition of one's own consciousness, and it is evinced by the doctrine of Kant, that experience consists of sensational intuition.[1] Knowledge of the life and consciousness of others is not ascribable to sensational discernment nor to apperception, but the knowledge is universally allowed to originate in experience. Knowledge of thickness originates in experience, yet thickness is neither tangible, visible, audible, tastable, or smellable. Temporal identity is not a thing to be objective to sensational intuition nor to intuition of one's own consciousness, but the knowledge of it is the product of experience. The symbol of it is the product of the mind borne upon by a certain degree of likeness. All who have treated of experience have overlooked that species of it which I denote by the name *inlooking sensational perception.* A thorough study of the genus, Experience, involving due attention to all its species, would probably have spared philosophy Hume's negation of the empirical origin of the idea of power, and Kant's negation of that of the ideas of time and space. It would have found that, in certain species of experience, causes totally dissimilar to their effects beget an immediate object that passes for a reality,—one which avows to scrutiny that it is purely a creature of the

[1] Kant teaches that intuition of one's own consciousness is sensational,—a rude and needless effacement of an important and distinct boundary.

mind, and merely a symbol of a possible or probable reality. This symbol may, as regards human intentional action, conveniently correspond to, without in the least resembling, the reality.

2*a*. The error which takes for granted that sense-perception and apperception comprise experience, combined with impatience of ideas that tend to betray scrutiny into metaphysical maundering, and afford to calculation no prescient point of view, contributed to engender Positivism. Blazoning the sovereignty of Experience, Positivism behaves towards it as a mayor of the palace, discarding some of its most important data, *e.g.* that there is a concrete and durable subject of consciousness, the thing denoted by the name Mind, the thing which denotes itself by the pronoun, "I"; that there is a quality in virtue of which certain concretes are causes, the quality denoted by the name Power; that life is a species of power,—a dynamic quality. I have already exposed what seems to me to be the error of Positivism as regards mind: let us see whether its doctrine respecting power, and the species of power termed Life, be not even less excusable.

2*b*. Immediate objects symbolic of power are familiar to sense-perception. To the burned child burning-power seems to be a tangible thing, and when we are pushed the pushing power seems to be a tangible thing. Power is objective to apperception. We apperceive what seems to be power applied by ourselves. In these cases an immediate object symbolic of power (whether truly symbolic or the reverse I do not pretend to imply) seems to be tangible. There is a species of power that belongs to the kind, inapparitional attri-

butes (§ lix. 2.). When the impact of one billiard-ball upon another then at rest is followed by the stoppage of the impinging ball and the motion of the other, our apprehension of the event involves an apprehension of the impinging ball as subject of an attribute such as is denoted by the name, force, and this attribute explains itself to scrutiny as being *power active;* the *quality, Power,* is raised for the time into the *occasional attribute,* Force. When we see water poured upon fire, and the apparent conversion of fire into cinders follows, the visual experience involves the apprehension of a quenching-power in the water. In these cases sense makes no pretension to perceive the power,—no such pretension as it makes in respect of burning or pushing power when the subject is burned or pushed,—but, nevertheless, experience is intuitive of the inapparitional or supersensible attribute, power. The existence of power and force, then, is a datum of experience, and, as reasoning depends upon data, the negation of the existence of those attributes is an arbitrary and capricious undermining of the ground of Reason. The effort of Positivism to emasculate objects as regards the attributes, power and force, is an enterprise against what is, for most minds, a necessity of thought, a necessity that is explanatory in respect of the most important part of events related to each other as antecedents and sequents. The attribute of mental constitution on which the necessity depends gives these antecedents and sequents as causes and effects. Abolish this datum and you make a part of the mind chaotic. The idea of necessary connection between antecedent and sequent contains only a part of what is contained in the idea of cause and effect. The first part of every hour is in necessary connection with the second

part; it is its necessary antecedent, but not therefore its cause. Something more than the idea of a necessary connection of antecedence and sequence is necessary to the idea of cause, viz., the symbol of power. Suppose the impinging billiard-ball to be coated with black paint and to impart a speck of the paint to the ball which its impact sets in motion. Here we have two antecedents of the motion of the second ball, both equally proximate as regards time and space, and one of them is held to have no bearing whatever on the motion. A countless multitude of events are proximate antecedents of every beginning of motion, and only one of them is accounted cause of the motion. Can it be supposed that this one, taken together with the concrete which it supposes, involves no attribute of a nature to necessitate the sequent. A necessity of thought excludes such a supposition; it compels belief in such an attribute, and that attribute is something more than necessary antecedence; it is what we denote by the name, power. It is true that the idea of power, like that of time, baffles scrutiny. When we consider power in relation to immediate effect it seems to vanish into nothingness, and then we are tempted to think that we mistook those effects, considered as means relatively to remote effects, for power. Power is no more prescindable than the colours of the rainbow,—at least it has not been hitherto prescinded. We fail to distinguish it from *inertia*, and from susceptibility. But we have no more right to deny its existence on that account than we have to deny the existence of the colours of the rainbow. The idea of power has not been developed out of the confusion in which the difference between causes and mere occasions—dynamic conditions, and what may be termed "adynamic" con-

ditions—is still in part immersed. The shadow at which one starts is a condition of the start, but certainly not a dynamic one. Is it a cause, or a part of the cause, or is it a mere *occasion* of the start? The circumstances, minus emotion, which give occasion for an indeliberate intentional act, are conditions of the act, but not dynamic. Are they, in respect of the act, causes or parts of causes, or are they mere occasions? According to Mill, a cause is the sum of the conditions.[1] If this be true, time and space are parts of, at least, all natural causes, for they are conditions *sine qua non* of all natural events. It seems to me that only dynamic conditions should be accounted causes, the adynamic being ranked as mere accessories. But, in spite of these embarrassments, the confusion from which the idea of Power exempts us vastly exceeds what the idea involves; and we should no more think of rejecting the idea because of its defects than of plucking out our eyes because they sometimes deceive us. We should regard it as an embryo which culture is in process of maturing, and hope perfect explanatoriness from the maturity of the idea. If we abolish the idea of power we abolish that of cause; for the idea of an adynamic condition, or a sum of adynamic conditions, is not the idea of a cause. If there be no such thing as power the thesis, *ex nihilo nihil fit*, is untrue; every event springs from nothing; antecedent events are as impotent in respect of the sequents that seem to be their effects as antecedent in respect of sequent parts of time; the impact of the billiard-ball that seems to cause the motion of the ball impinged upon has no more to do with the apparently consequent motion than any of the infinitude of events simultaneous with

[1] *A System of Logic*, Book III. chap. v. § 3.

the impact: that electric action ceases if, in connection with an electric battery, we substitute twine for wire, does not suppose an aptitude in the wire that does not exist in the twine; events follow in the one case that do not in the other, but not at all because of an attribute—a power—in the wire that is not in the twine: the uniformities of events are causeless; they occur by chance; the order of our thoughts is not an effect of our nature; there is no reason why the thoughts and their order should not, as Hume imagined, obtain without the existence of a man: indeed, with power and cause we abolish nature, for nature is power.

2*c*. Experience gives life as being a quality,—a quality proper to animals, not common to animals and plants. Philosophic inference has pronounced it to be quite a different thing, a thing not proper to animals, but proper and common to animals, plants, and certain of the parts of these, *e.g.* the cells of which animals and plants are composed. Moreover, it repudiates the datum of experience, that life is a quality, and holds it to be a series of events, viz. the series constituting nutrition, reproduction, and generally what are known as vital acts. Even Stahl, who maintained that life depends upon the soul, held it to be a series of events. "Life," he says, "is the result of the conservative action of the soul,"—which supposes it to be a series of events resulting from a series of psychical acts. By modern biologists life is held to be a series of events known as vital. In his *Principles of Biology* Mr. Spencer defines life, "the continuous adjustment of internal to external relations." An examination of the genesis of the idea of Life finds

that experience puts it as a quality. The kind, animals, is a primary kind. Latent experience begets in the unconscious region of the mind an equivalent of an idea of the kind, animals, before the idea obtains. Death elucidates the specific attribute of the kind. When, for the first time, one makes acquaintance with death, perhaps seeing a body that *was* the body of his father, brother, wife, or child, and *is* a corpse, the contrast informs him that something has departed from the body, something which an exposition of the discovery would describe as being characteristic of animals and a condition *sine quâ non* of their peculiar motions. The rigidity of death is given as excluding not merely the suppleness and the motions characteristic of animals, but also a dynamic quality on which the motions depend. The experience ignores the events that are proper and common to animals and vegetables, *e.g.* nutrition, reproduction, etc., events which are knowable only through inference; and, accordingly, life, as at first discriminated and as it is commonly apprehended by children and the illiterate adult, is given as being proper to animals. Children, and the illiterate adult—all those who know respecting life only what experience teaches—always learn with surprise that plants have life. The idea of the *differentia* of Life, as given by experience, includes a symbol of essential connection between life and sensibility. Such, on the avouch of experience, is life—the dynamic quality manifested by the intuitable motions proper to animals. Science reformed the idea of life given by experience, and subsequently substituted for it an idea that bears to it scarce any resemblance. Finding that there are events which are proper and common to animals and vegetables, and

that these are of much greater importance than those which exhibit life to experience, science discarded from the idea of Life given by experience the symbol of astriction to animals, reforming it into the idea of quality on which depend events proper and common to animals and vegetables. In logical language, it diminished the comprehension and increased the extension of the idea. In depriving the idea of the symbol of astriction to animals, it deprived it also of that of essential connection between life and sensibility; for common sense could not be brought to allow that plants are capable of consciousness, and evolution, nutrition, and reproduction are unconscious events. So far science merely reformed the idea of Life given by experience, but now it was to substitute quite another idea, according to which there are as many lives as cells and organs in an animal or vegetable. Every organ, every cell, has a life of its own, and the life of the animal or vegetable is either the sum of the lives of its cells and organs, or a life begotten of that sum. An obvious animal or vegetable is an aggregate of unobvious animals or vegetables. According to this hypothesis, the idea of a swarm of midges or a hive of bees being compacted into an animal is not altogether unworthy of serious entertainment. Fissiparous generation, and the fact that mechanical division can convert a part of a polype into a polype, are the pretext for this affront to the authority of experience. A decent regard for that authority would have put up with the explanation that, when a part of an animal or vegetable converts into an obvious animal or vegetable, a new life begins. I venture to say that biology cannot adduce a fact which is not as satisfactorily explicable in this way as by the revolutionary

hypothesis. The growth of hair and nails in a corpse, and the behaviour of the corpse under certain currents of electricity, should have excluded, or at least postponed, the hypothesis. The growth of hair and nails in a corpse proves that growth, although proper to organisation, is not necessarily a vital event—much less is the series of events which evolve the additions to hair and nails an individual of the kind, life. There are qualities that depend upon antecedent, but not on present, life; such is the quality that evolves hair and nails in lifeless bodies and makes the prodigious reaction to the electric current of an *organism which survives life.* This by the way.—Life and organisation are not interdependent. The amœba protests that life is possible without organisation, and the hair-growing corpse, that organisation without present life is possible. If, according to the Darwinian theory, the more complex forms of living things proceed from the simpler, unorganised living things must have been the primordial ancestors. We are the offspring of the amœba or of some other unorganised animal. Life is the precursor of organisation.[1] To return,—*as regards the question,* What is life? Positivism heads an insurrection against experience.

2*d.* But granting that parts of the animal or vegetable have lives proper to them, respect for experience requires us to believe that the life is a quality, not a series of events, and that it is a power,—the power to cause certain vital events.

[1] Bichat, and those who hold with him that life supposes organs, are rebuked by the amœba; and growth in a corpse refutes the assertion of Mr. Lewes that a corpse is not an organism.—*Physical Basis of Mind,* p. 9.

2*e*. Has not the aversion of Positivism to metaphysics a deeper cause than mere aversion to squaring circles? Certain minds may be incapable of the idea of the *inapparitional* attribute, as the colour-blind are incapable of discernment of certain colours. To such a mind the name, Power, could denote nothing more than invariable antecedence in respect of certain sequents. I cannot imagine how it could apprehend the antecedence as being necessary, although Hume, the great spokesman of those who give occasion for the hypothesis, allows a nexus, which he terms necessary-connection, between events related by invariable antecedence and sequence. I shall show (§ cxii. 2*d*) what gulfs yawn between different orders of mind as regards the ideas of Time and Space, and it seems to me not improbable that we are now in the way of discovering another. Perhaps, as giving more reason for intellectual humility and agreement to differ, the discovery should not be an occasion of regret. But let me not be understood to imply in this suggestion or in any contention with Positivism disparagement of the splendid abilities of Comte or of the notable men who have upheld his doctrine. If it were proved that there are minds which exclude intuition of inapparitional quality, the conclusion would not involve a corollary that those minds are inferior. For aught we know the exclusion might be an advantage, not a defect. It has not prevented Positivism from being in the van of science. The evolutionary thinking of the race has its course, like that of a river, determined by opposition; it is dashed by headland to headland, and the mental structure of the Positivist is one of the great headlands that give direction to philosophy. It is infirmity, not strength, that is prone to depreciation of opponents.

CII.

Experience begets opinion, and doubt, as well as knowledge, but it is essential to it to beget knowledge, and accidental to beget opinion and doubt. Perception sometimes involves an inchoate action of the faculty of identification, and therein an opinion and doubt, or a pure doubt, respecting an identity. This experience, it might be thought, is one that does not beget a knowledge. But it does beget a knowledge, viz. a knowledge of the existence of the thing of which the identity is in question.

CIII.

1. Experience occasions a kind of knowledge which philosophers have altogether ignored, viz. knowledge of what the subject is not experiencing (knowledge which memory converts into knowledge of what has not been experienced), *e.g.* that I am not beholding an elephant or a mountain, that I have not seen the Andes. It also occasions the knowledge that its real field does not include certain things, for example, that there is not an elephant or a mountain in the real field of vision. It occasions a third kind of negative knowledge, viz., that what has not been experienced by any man nor inferentially discovered does not exist. The genus of these three kinds of knowledge is differentiated by what may be described as derivation from empirical negation, and the knowledge may be termed *empirically*

negative knowledge. It may be divided into two sub-genera, which may be termed, the one internal, and the other external, empirically negative knowledge. The former is knowledge of what is not or has not been experienced, the latter comprises two species which may be distinguished, the one as extravagant, the other as non-extravagant, empirically negative knowledge. The product of the law of belief which obliges men to assume that the humanly known exhausts the knowable, although of great utility, is certainly extravagant. Knowledge that what is not now being experienced is not now here—not now within the real domain corresponding to the symbolic domain of experience,—although far from indefectible, is not extravagant. Internal empirically negative knowledge is all but indefectible. The knowledge is internal as being confined to the field of immediate objectivity.

2. Empirically negative knowledge is a good example of the kind of knowledge of which the *differentia* is that it obtains unconsciously,—is, in its inception, unconscious—also of unconscious knowledge to which no conscious knowledge ever corresponds. How many have lived and died unconsciously knowing, and never consciously knowing, that they had never seen the Andes.

CIV.

The relation of experience to time has not been profoundly studied. Its objects are given as being of the present, but the part of time referred to by the

datum is a very different thing from the conterminus of the past and future which philosophy denotes by the name Present. The present to which the datum refers is really a part of the past—a recent past—delusively given as being a time that intervenes between the past and the future. Let it be named the specious present, and let the past that is given as being the past be known as the obvious past. All the notes of a bar of a song seem to the listener to be contained in the present. All the changes of place of a meteor seem to the beholder to be contained in the present. At the instant of the termination of such series no part of the time measured by them seems to be a past. Time, then, considered relatively to human apprehension, consists of four parts, viz. the obvious past, the specious present, the real present, and the future. Omitting the specious present, it consists of three ultra-entities—not to say nonentities,—viz. the past, the future, and their conterminus, the present. The specious present is a fiction of experience.

CV.

By the way,—how much respect has been had to the endowment of man with an adequate faculty of knowledge is evinced by the idea of Time. The idea is a fundamental one, being the hinge of the idea of Event, and nevertheless is stigmatised by various inconsistency. As symbol of what consists of the past, the present, and the future, it is a symbol of a putative entity composed of the three nonentities, the past which does not exist, the future which does not exist,

and their conterminus the present: the faculty from which it proceeds lies to us in the fiction of the specious present. Have we indeed reason to rely that human fallibility is not radical?

CVI.

Experience and judgment are sometimes so intimately combined as not to be distinguishable without scrutiny, and in such cases experience seems to be in essential connection with question. Columbus' first perception of transatlantic land, being connected with question whether such land did or did not exist, was combined with the judgment "transatlantic land exists;" and the perception has at first sight the air of being dependent on question,—essentially connected with it. The connection is merely accidental.

CVII.

What is denoted by the term, experiment, is not limited to experience. A mathematician may, without use of sense, experiment with and upon mere ideas of numbers and mathematical diagrams, so as to discover properties of numbers and figures and invent rules, *e.g.* the rule of three or the rule for making an equilateral triangle.

CVIII.

Human skill is given as being the effect of an interaction of man and his environment, an interaction that pretends to be a species of experience. In so far as the interaction originates knowledge,—knowledge how to perform—it is certainly experience, but, as there is a kind of skill that does not seem to be involved with knowledge how to perform, all interaction that begets skill does not present a good title to be accounted experience. Skill unrelated to the knowing faculty by a rule of performance without which it is not in the province of art and is not verbally communicable by one man to another, *e.g.* skill in hitting a mark with a stone, is not involved with knowledge, and the interaction that begets such skill fails to make good its pretension to be accounted a species of experience. An operative, by his skill in compounding certain chemicals used for dyeing, achieved for his employers a great success, but was quite incapable of discerning the rule according to which his skill proceeded. Here we have an example of skill uninvolved with knowledge, and of an interaction of man and his environment which, although productive of skill, does not fall within the kind hitherto denoted by the name experience. If we enlarged the idea and comprehension of the kind so as to make room in it for the interaction that begets skill, the proceeding would demand of us a still greater enlargement, whereby the kind should accommodate, as a species, the latent bodily processes that transmit to offspring faculties acquired by an ancestor. Philosophers have already taken this

liberty; a bold way of philosophising due to the disregard and even contempt[1] of the deductive spirit and method which has resulted from the great success of induction. If the philosophers who have thus innovated upon the kind, experience, had undertaken to define the kind, it is probable that they would have encountered difficulties which would at least have cooled their precipitation. To undertake to define, tends to arrest and allay the temper of indiscreet rapidity in philosophy. It brings to book and tends to beget a humbler intellectual temper. I do not see my way to a definition of Experience accommodating so great an innovation and conformed to the rule of eschewing assumption, especially of begging vexed questions. It seems to me not impossible that one day, owing to an advance of knowledge, the interaction which begets skill and the processes of hereditary transmission of acquired faculty may be found to be species of a genus entitled to the name, experience; but at our present stage of knowledge we are not prepared for a definition affording legitimate accommodation to the new candidates. The verbal communication to one man of knowledge originated by the experience of another, is not an experience; it is the offspring of, but not, an experience. How then should we account the processes whereby a faculty, whether of intuition or skill, acquired by an ancestor, is transmitted to his progeny, an experience? The laxity of the inductive spirit as regards definition—its tendency to overlook differences which are not as near to obviousness as they are important,—has begotten an idea of experience according to which knowledge derived from

[1] The author of *Philosophy Without Assumptions* sneers at deduction,—at reasoning that pretends to infer what "must be."

one's own experience is not distinguished from verbally imparted knowledge originated by the experience of another. My knowledge that there is a country named China is indeed the offspring of experience, but not of *my* experience. It is guaranteed to me, not by experience, but by the law of confidence in the assertions of others; whereas they may err or lie. I have defined experience without assuming the existence of a material human body or a material environment, making the term as available to the idealist as to the materialist. This advantage must be forfeited if the comprehension of the kind be enlarged so as to embrace event that originates skill not founded on knowledge of rule.

CHAPTER XV.

NO KNOWLEDGE À PRIORI.

CIX.

ALL guaranteed knowledge, including knowledge of axioms and knowledge that originates in guaranteed inference, is accounted *à priori*. According to Kant, knowledge of time and space is *à priori*. Allowing these three kinds of knowledge to be *à priori*, what is the *differentia* of knowledge *à priori?* Not the being congenital or unacquired, for guaranteed knowledge that originates in inference, *e.g.* Mathematics, is acquired. Not origination outside of experience, for the knowledge achieved by what is known as the inductive leap originates outside of experience, and it is not accounted *à priori;* it is separated from experience by a gulf which the leap traverses. There seems to be no other attribute that is proper and common to the three kinds of knowledge in virtue of which they could be reasonably supposed to comprise a genus denotable as knowledge *à priori*. But, if we eliminate guaranteed knowledge that originates in inference, it may, without flagrant inconsistency, be held that knowledges of the two remaining kinds are congenital, the antecedence referred to by the adverb *à priori* being that of con-

genital knowledge in respect of experience. This indicates the history of the term, knowledge *à priori*. Axiomatic knowledge was at first the only knowledge denoted by the term; then the signification of the term was extended so as to embrace all deductive or guaranteed science, and was finally stretched by Kant so as to include knowledge of time and space. Now if it be shown that axiomatic knowledge and the ideas of Time and Space are the creatures of experience, we destroy the foundation of the pretension of guaranteed science to be knowledge *à priori*, and so prove that there is no such knowledge. This I proceed to show.

CX.

Axiomatic knowledge is divisible into knowledge of discoverable, and knowledge of undiscoverable, axioms. The axiom The sum of the parts is equal to the whole is an example of undiscoverable axioms; the axiom, a limit is the conterminus of two beyonds, of discoverable axioms. Knowledge of undiscoverable axioms begins unconsciously. The process by which experience supplies the pertinent cognitive complement to the pertinent thesic affection (§ xviii.), converting an incomplete thesic affection into a complete one, is latent. The latency excludes the possibility of discovery prior to a late development of philosophy. On the other hand, question and effort to make the contrary an object of knowledge are needed to convert the incomplete thesic affections that refer to discoverable axioms into complete ones,—into knowledges. It is obvious that knowledge of undiscoverable axioms originates in

the experience which supplies the pertinent cognitive complements, but it is not obvious that knowledge of discoverable axioms so originates. This, however, admits of proof. The kinds that are the subjects of discoverable axioms, *e.g.* limits, beginnings, events, causes, are made known by experience, and the mental symbols of them are so fashioned by the experience in which they originate that scrutiny must needs find in them the attribute which the axiomatic proposition predicates. The experience makes essential to the subject the condition of a complete seeming of necessity in virtue of which scrutiny intuitively sees in the pertinent thesis an axiom,—sees inconsistency in the opposite thesis. For example, it inserts into the idea of a limit the condition of the complete seeming of necessity that a limit is between two beyonds; into the idea of a beginning the complete seeming of necessity that a beginning is an effect. The property of experience whereby it generates the conditions of deductive discovery of the infinite and the absolute were hidden in our ignorance of the possibility of unconscious knowledge and of the latent operations of experience. This will be further illustrated by the exposure of the empirical origin of the ideas of Space and Time.

CXI.

Kant holds that knowledge of space and time is *à priori.* He grounds the doctrine on the following arguments;—*a.* The idea of Space cannot be a product of external experience, or that which has for object the universe external to the mind or any part of it, because that experience presupposes an idea of space, an idea

of an extended thing without one of space being impossible: *b.* The idea of Space involves an idea of non-contingent existence, for space is given as existing of necessity, a consistent notion of the non-existence of space being impossible; but experience takes no cognisance of the non-contingent; it is confined to cognisance of the contingent: *c.* The idea of Space is the idea of an infinite monad; the symbols of infinity and of a unity that excludes separableness of parts are essential to it, so that it could not be the offspring of an addition of part to part, but springs complete into being; it cannot, therefore, be accounted a collective or general idea; to hold that a part of space is first apprehended, and that then other parts are successively added and finally a complement of infinity, is inconsistent.

CXII.

1. Now it is true that a sense-perception of an extension supposes a discernment of a void, (whether of an infinite and absolute void may for the present be left an open question), but it does not *pre*suppose such a discernment. It is not only conceivable but it is highly probable that an impression made by a solid upon a tactile afferent has the property of causing a sense-perception that has for object both a solid and a void.

2*a.* The second argument begs the question whether it be competent to experience to beget knowledge of the non-contingent, and, more generally, of Necessity. We might alter the meaning of the term Experience, so

that it should denote a kind of mental events of a nature to initiate knowledge of the contingent. It might be a most expedient arrangement, but the philosopher who makes free to do this should give us notice of the change, and define the kind to which he applies the term. Kant does neither. Following Leibnitz he asserts, as though it were a self-evident truth, that what all the world understands by the term, experience, does not give cognisance of the non-contingent, of what could not *not*-be. He thereby implies, or seems to imply, that it is not competent to a latent encephalic event consequent to a tactile impression to cause a discernment of both a solid and a non-contingent void. If it have this property, it is idle to pretend, as Kant pretends, that it produces the two objects of the discernment in different ways, one *à priori*, and the other *à posteriori*,—as idle as to pretend that the friction of the lucifer match elicits the consequent light from the match, and the consequent heat from the substance against which the match is rubbed. The speciousness of the doctrine, that certain ideas originate *with*, but not *in*, experience, covers just so much emptiness. It is true that space is given as a thing which could not be tactilely discerned, but physiology annulled the datum when it ascertained that the proximate cause of a sense-perception is an event occurring in a nerve centre, and not at the periphery. So long as belief is determined by the datum, that the immediate object of sense-perception is real, and that its relation to the percipient is the proximate cause of the perception and the immediate object of the inlooking sensational discernment which attends the perception, so long it is also determined by the datum, that space, as being intangible, is not discernible by means of the tactile

sense. But when it is known that the relation of the perceived reality to sense, *e.g.* the contact of a solid with the hand, is only a remote cause of the perception, that a series of latent nerve and cerebral changes intervene between that and the proximate cause, that the latter is extremely unlike the object of the discernment which is its immediate effect, and that, in all probability, the object is unreal and a mere vicar of the reality with which the perception puts its subject in cognitive relation; when, also, it is considered that a tactile impression could not beget the idea of a solid without a concurrent idea of a void, the principle of parsimony demands (and the demand encounters no reasonable objection) that impressions on tactile afferents have the property of causing discernment of space. The discrimination between mental events that beget knowledge of the non-contingent and those that acquaint us with only the contingent, is one of great importance, but, to secure it and elicit from it all its significance, it is not necessary to innovate upon the common idea of experience. If the mental organism be such as to yield after a little practice to a tactile impression the idea of an absolute void, then experience, according to the common notion of what the name denotes, acquaints us with the non-contingent,—with the absolute void termed Space.

2*b*. We have ideas of contingent and mobile voids, *e.g.* the apparent void in the cabin of a moving ship. Of course the apparent void is really a succession of the parts of space filled with air, but our concern at present is with the idea, not with the reality. Now, according to Kant, there must be two sources of ideas of voids, one *à priori* for the idea of Space, the other

à posteriori for ideas of contingent voids; ideas of places, like those of voids, comprehend ideas of non-contingent places, *e.g.* the parts of space, and ideas of contingent places, *e.g.* a ship's cabin or hold, a pocket, the squares of a chessboard. To accommodate to Kant's theory we must allow two sources of ideas of Place, one a faculty of cognition *à priori*, the other a faculty of cognition *à posteriori*. Kant holds that the idea of Time, like that of Space, is *à priori*. But we discern musical intervals that seem at first sight to be contingent, and avow to scrutiny that they are parts of time and therefore absolute. Are our ideas of these *à posteriori*, and our ideas of obvious parts of time *à priori*? The offence to the principle of parsimony involved in such a multiplication of faculties is obviated if we consent that experience takes cognisance of the non-contingent as well as of the contingent, and that it is the source of the ideas of Space and Time. It is probable that, at first, all void and matter not given as beginning, ending, or in motion, is given as non-contingent and unsusceptible of change, but that experience of the change of place and of the apparent becoming and annihilation of bodies undoes the datum as regards matter, whereas there is nothing to disturb its empire as regards space. The idea of Place would not be possible without experience of determining material limits, and the determining matter was probably apprehended as being an absolute boundary when the place was apprehended as absolute. The aversion to the idea of the earth's motion which resisted the theory of Galileo not improbably had its root in this law of experience.

2*c*. Space is given as involving a non-contingent

"up-and-down," until the relativity of the latter and its dependence on gravitation are discovered. That gravitation determines our intuitions of "up-and-down" is proved by a very simple experiment. Put into a stereoscope a photograph of a projecting beam: apply the stereoscope to the eyes so as to exclude all visual objects save the photograph: look at first downward, then forward, and then upward; when you look downward the beam appears to project from a floor, when forward from a wall, when upward from a ceiling. The relation of the eye to the object is the same in the three cases, so that the differences of the intuitions must be owing to those of the relation of the head to the line of gravity. The idea of "up-and-down," then, and of its non-contingency, depends upon gravitation, and therefore upon experience. In respect of this idea gravitation is a mould of experience. The pretension, therefore, that it is not competent to experience to be cognisant of the non-contingent, is unfounded.

2*d*. According to Leibnitz and Kant intuitive knowledge *à priori* is differentiated by necessity, *i.e.*, the thing known *à priori* seems to be necessarily true. Tried by this criterion, knowledge of space and time is not *à priori*. Descartes and Leibnitz are conspicuous examples of a species of mind to which space and time are given as being contingent. To the mind of Locke time was given as contingent,—as being a mere attribute of event—and space as being infinite and absolute. To the writer space was given as absolute before he discerned its infinity. By the way, these facts, though they refute Kant's doctrine respecting the origin of our knowledge, make for another important part of his doctrine, namely, the dependence of knowledge on

mental moulds. They show us these moulds determining opposite seemings of necessary truth, making it seem to one mind necessarily true that time and space are infinite and absolute, and to another that they are finite and contingent. They reprove dogmatism, and prick its pretence that, as Jacobi holds, we grasp the Absolute in immediate knowledge. The poor conceit, that the circumstances contribute one constituent of knowledge and the mind another, loses countenance in their presence. They explain that we have mistaken a seeming of necessary truth for necessary truth, and that demonstrative science has no better endorsement than the seeming. They chasten us with the humiliating conviction that the mind is radically fallible, and admonish us to take refuge in lowly trustful scepticism. If the evidence drawn from profound differences of mental structure be too recondite to be convincing, proof of a homelier kind is at hand. Experience acquaints us with contingent things that are opposites, *e.g.* light and darkness, sound and silence, opacity and transparency, and in respect of these, begets such axiomatic knowledge as that no light is dark, no silence is sonorous, no opaque thing is transparent. Kant's pretext, that such knowledge is determined by the principle of contradiction, avails nothing, the principle being, not a source of knowledge, *à priori*, but, a mould of experience.

2*e*. The doctrine that experience excludes cognisance of the non-contingent emanates from a teeming cause of error, viz. the mistaking certain conspicuous species for their genus,—in other words, oversight of obscure species. Experience, of itself, begets only two knowledges of the non-contingent, viz. those of time

and space,[1] objects which it gives for the most part as indistinct accessories of other objects, and never as objects of attention. All other objects of experience unassisted by inference are given as contingent,—none of them as exhibiting a complete seeming of necessity.

3. The third argument breaks upon the fact that certain men discover of themselves the infinity of space long after space had been given to them as a void between the sky and the earth. One of the most conspicuous events in the childhood of the writer was this discovery (§ xxxviii.). It seems that the idea of a limited absolute void precedes, at least in certain cases, that of the infinity of the void, and that we acquire the idea of Space piecemeal. That we acquire it deductively from the axiom, A boundary is surrounded by a region, I have shown in my argument against the Law of the Conditioned (§ xxxviii., xlii.). Kant's doctrine, that necessary truth is proper to knowledge *à priori*, translated into the doctrine that seeming of necessary truth is proper to knowledge *à priori*, is refuted by two data, viz. there is a non-contingent "up-and-down," and, falling is the alternative of support,—data that are the offspring of an experience determined by the latent bearing of gravitation on consciousness. It is also refuted by the datum, I exist, a seeming of necessary truth of such importance that it has been made the foundation of a dogmatic philosophy. The

[1] Knowledge of First Cause is the remote offspring of experience and the immediate offspring of an inference. It depends on the datum, Except the parts of time, what begins is effect. It takes an inference to elicit the knowledge from the datum. The part of experience in the generation of the knowledge is the generation of knowledge of beginnings and effects.

existence of the Ego is contingent, and, according to Kant, the contingent is not knowable *à priori.* Therefore, the seeming of necessity of the existence is the offspring of experience. Geometry refutes the doctrine; for geometry is a science of the properties of figures indifferent whether they be contingent or non-contingent, whether parts of space or extended things. If it be true that it originated as an instrument for the ascertainment of the boundaries of land, it at first related exclusively to the contingent. That it grounds nothing on the non-contingency of space is proved by the certitude which it elicits in minds to which space is given as being contingent, *e.g.* those of Descartes and Leibnitz. In so far as it builds on problems it builds on the contingent, for problems have to do with the factitious, *e.g.* with a made circle, and the factitious is contingent.

CXIII.

1. No knowledge is antecedent to or independent on experience; but familiar species of experience—those which have hitherto seemed to comprise all experience—have so small a share in the origination of the kinds of knowledge accounted *à priori* (the kinds comprising guaranteed knowledge) that even now, in view of the reasons of the opposite doctrine, the mind of the writer tends to revolt to the doctrine of knowledge *à priori.* The arguments on which its opponents have hitherto pretended to found the opposite theory are fallacious. Mr. J. S. Mill especially, a conspicuous opponent of the doctrine, is amenable to the reproach of having derived a true conclusion from

a false reason,—one that had not even the excuse of being specious. He held that we derive our knowledge of axioms from experience of instances,—instances so numerous and of such binding force, that the syntheses they cause, although accidental, exhibit a complete seeming of necessary connection. We are concerned to expose the fallacy of his argument, to ascertain what an instance is, and to lay bare a species of experience of instance but for the latency of which there would not have been room for the controversy.

2*a*. An example is *a particular illustrative of its kind*, or of the truth of a general thesis. An example illustrative of the truth of a general thesis is an *instance*. If to make known to a child the kind, knives, I show him a knife, I have recourse to a mere example: if, to make known to him the explosiveness of *all* gunpowder, I explode some in his presence, I have recourse to an example that is an instance. In the one case I do, in the other I do not, illustrate the truth of a general thesis (such as the thesis, All gunpowder is explosive).

2*b*. There is a species of instances to which it is essential to be *distinct*. Every instance must exhibit a relation of subject and attribute; but, whereas it is competent to instances of a certain kind, it is not competent to others, to bear indistinctly on the mind. It is competent to the relation of whiteness to the other attributes of the swan to bear indistinctly on the mind: in fact, the indistinct bearing latently begot the erroneous knowledge, that all swans are white. But it is not competent to the relation, equality of the sum of the parts to the whole, to be indistinctly objective.

Accordingly, the indistinct objectivity of the relation of whiteness to swans made every observed swan an instance relatively to the false thesis, All swans are white, whereas it is impossible that the equality of the parts to the whole should be indistinctly objective and so make the whole an instance relatively to the general thesis, The sum of the parts is equal to the whole. It needs extraordinary occasion, such as the circumstances that originally led to the discovery of mathematics, or those that engage the mere pupil in the study of that science, to make such a relation objective.

2*c*. According to Aristotle, whose doctrine has been lately revived by Mill, axioms are the offspring of induction; and by induction both Aristotle and Mill meant experience of instances. They imply that there is a period in the mind of every individual in which, though the terms be understood, the individual could not assent to the truth of the axiom, the sum of the parts is equal to the whole; but, after several occasions of seeing sums of parts denuded of the appearance of totality and comparing them with themselves *quâ* clothed with that appearance, and intuitively discerning their equality to one another, he inductively infers that, in all cases, the sum of the parts is equal to the whole. Now it seems to me highly probable that the violence of this hypothesis would have been spared had its advocates distinguished the species, instances to which it is essential to be distinct. Neglecting this species, and aware that the indistinct objectivity of certain instances causes general knowledge, they judged, I take it, that knowledge of axioms might be the effect of a like objectivity, that the infant mind could be as indo-

lently instructed by the one as by the other. But, allowing this apology, it does not exempt from reproach incurred by oversight of the fact, that, from the time memory begins to record experience to the commencement of the study of mathematics, the mind never encounters such a distinct object as equality of a sum of the parts to the whole; whereas the doctrine that axiomatic knowledge derives from induction requires that equalities of sums of parts to their wholes so haunt the discernment of the infant as not only to establish certitude of the truth of the pertinent general thesis but also to impart a seeming of inconsistency to its opposite,—a seeming of which no skill of the most enlightened can divest it. No one, I presume, will entertain the idea of the prodigious discourse which this doctrine of Aristotle imputes to the infant mind. It is clear that the advocates of knowledge *à priori* were right in so far as they denied that the knowledge in question is the offspring of experience of instances, although wrong in denying that it is the offspring of experience. The doctrine, that the aspect of necessity to be true exhibited by axioms results from experience of instances of exceptional frequency and intimacy, splits on the fact that the negation of the reality of the *not-me* does not exhibit a seeming of inconsistency. The thesis, I am all that exists, although extremely absurd seems perfectly consistent; yet the instances of synthesis of what is given as the *not-me* with reality surpass all others as to frequency and intimacy. The thesis that men's heads are above their shoulders, although pressed upon the synthetic faculty by exceptional frequency and intimacy, makes no pretension to be an axiom.

CXIV.

To hold that experience is the source of all knowledge entails no necessary divergence in any other respect from the theory of Mind of those who believe that a part of human knowledge originates away from experience. What Kant distinguishes from all other knowledge as knowledge *à priori* the writer distinguishes as guaranteed knowledge. The writer agrees with Kant that a complete seeming of necessity guarantees one of these kinds of knowledge, and not the other. As regards the word "transcendental," the agreement is nominal as well as real. That very knowledge which Kant denominates transcendental knowledge the writer denominates transcendental knowledge. According to Kant it is pure knowledge *à priori*, according to the writer it is guaranteed knowledge of the non-contingent; in the view of both pure mathematics exemplifies transcendental knowledge, and applied mathematics guaranteed knowledge that is not transcendental. Kant allows that all knowledge *begins* with experience, but claims that what he terms knowledge *à priori* does not arise in experience. The writer holds that Kant overlooked a species of latent experience, viz. that which generates axiomatic knowledge, and, mistaking the obvious part for the whole of experience, correctly held that what he terms knowledge *à priori* does not arise out of what he took to be the whole of experience. A notable difference distinguishes the experience that generates the axiomatic part of guaranteed knowledge from all other experience, viz. that the knowledge cannot be forgotten. It is so grounded in us to be inseparable from the structure of the mind. No wonder, in view of the latency of its origin and its inseparableness from the mind, that it was taken to be independent of experience.

CXV.

1. Experience comprehends and is comprised by the following six species:—

Apperception.
Reflection.
Inlooking sensational Perception.
Sense-perception.
Emotive Perception.
Latent Experience.

Of these, apperception and reflection have always been more or less confounded. Even Leibnitz does not completely distinguish between them. Two of them, viz. inlooking sensational perception and latent experience, have been altogether overlooked. In limiting Experience to the operations of the external senses and what he terms the internal sense, Kant quite overlooks the empirical character of emotive perception. As to the comprehension and extension of experience he follows Locke, from whom he borrows the term, internal sense.

2. The operations of the supersensuous faculty, being always subsidiary to those of the other empirical faculties, *e.g.* the faculties of apperception and sense-perception, do not constitute a *species* of experience. They contribute to experience two kinds of immediate objects, viz. those that are symbolic of the contingent, *e.g.* the symbols of identity, durability, power, thickness, etc., and those that are symbolic of the non-contingent or absolute, *e.g.* the symbols of time and space. Let the latter be distinguished as transcendent, and the former as non-transcendent. Let knowledge of transcendent objects be distinguished as transcendent.

CHAPTER XVI.

RECOGNITION.

CXVI.

1. THERE are immediate objects that are differentiated by an attribute significant of objectivity to former discernment, — significant either that the object was formerly discerned, or that its like was formerly discerned. *Recognition* is the common name of the discernments supposed by those objects. Let the *differentia* of the object of recognition be termed recognitional attribute.

2. Familiarity is a species of recognitional attribute. It signifies that the object has been either object of many discernments, or the like of objects of many discernments. When the object of recognition has been discerned but once before, its recognitional attribute tends to be the hinge of a remembrance of the former discernment. Objectivity void of the recognitional attribute, or of all but some faint tincture of it, is what is known by the name "strangeness." By the way, it is highly probable that the mind is not susceptible of wonder until it has become accustomed to the familiar, —that infants at first experience no surprise, but need

to be for some time exclusively conversant with familiar objects to be susceptible of that emotion.

3. A recognition either is or is not an identification. Let recognitions that are identifications be termed recognitive identifications, and those that are not "non-identific" recognitions.

4. Identification differs according as it has or has not reference to identity in time, *e.g.* the identity of a present with a former object of vision. When one notices that the acclivity and declivity of the same incline are but different aspects of the same thing, he identifies, but the identification has not respect to a temporal identity. Accordingly, identification is divisible into temporal and non-temporal identification. The former is either recognitive or irrecognitive, recognitive when it is caused by the likeness of a present to a former object of discernment, otherwise irrecognitive. When the constituents of water known to have been in a given place convert into ice, and the water is consequently given as having become ice, a temporal identification obtains (viz. of the ice with the water), but the identification is not recognitive,—it is caused not by a likeness but by a bearing of sameness of place on the mind.[1] By the way, the identification is delusive, for the water has not become ice; certain of its constituents, through annihilation of the constituent, liquidity, and substitution of the constituent, hardness, have become constituents of ice. An analogous error

[1] This kind of intuition has been ignored by philosophy. If classed at all, it would probably be classed as an inference, as though it were involved in a discourse wherein the idea of the place is given as evidence from which the identity is inferred. Perception is not more free from discourse, assertion, and the intervention of evidence.

of the faculty of identification has begotten the doctrine, that water is a compound of oxygen and hydrogen. Note that identification by means of evidence, as of one's hat by evidence of the place in which it was deposited, is not recognition.

5. The knowledge involved in recognition is for the most part unconscious. One knows, but not consciously, the identity of familiar objects of perception while he perceives them, and also their likeness to other things formerly perceived. If the identity of a perceived familiar object be in question, the knowledge of it is conscious, but circumstances of a nature to put identity in relief are rare.

6. Recognition involved in experience I distinguish as empirical, all other as non-empirical. The visual recognition of an object as being a man, is an example of empirical recognition. The train of ideas consists of objects of non-empirical recognition. Remembrance of an object not present to sense involves non-empirical recognition.

7. Empirical recognition is the effect of a latent action of likeness on the mind. To show this it is necessary to distinguish and name two species of likeness which philosophy has overlooked.

CXVII.

1. Likeness of and above a certain degree has a remarkable property, viz. tendency to cause several

things to pass for a single thing. For example, it causes the several things constituting a crowd, a swarm, a flock, a galaxy, a regiment, to pass for a single thing; it causes the several parts of a stone to pass for a single thing. Likeness of a lower degree has no such tendency. Men and insects resemble each other as to many important bases of likeness, *e.g.* life, organs of sense, etc., but the resemblance has no tendency to gather them into a unit before the eye of intuition. Let the unifying tendency of likeness of and above the degree referred to be termed "unitiveness," and let likeness differentiated by unitiveness be distinguished as "unitive." Likeness, accordingly, is divisible into *unitive* and *non-unitive* likeness.

2. The higher degrees of unitiveness tend to hide, and the lower to leave exposed, the plurality of the object the aspect of which it contributes to determine, *e.g.* to hide the plurality involved in a perceived stone, to leave exposed that of a crowd. Our debt to unitive likeness is so great that one wonders how the creditor should have so long remained unknown. Without its help perception could have no objects but least-perceptible things such as *minima visibilia.* The idea of Cosmos would not be possible. An indefinite severality would distract consciousness and hold it in worse than brute impotence. We should be void of ideas of plurality, number, kind, whole, and part. Such is the dependence of intellection on unitive likeness.

3. The law according to which unitive likeness operates may be termed the law of *e pluribus unum.*

4. The function of unitive likeness is not confined

to what is regulated by the law of *e pluribus unum;* it has a property whereby it also causes empirical recognitive identification, and empirical non-identific recognition, and its action on the mind in this causation is latent. The identification involved in a visual perception that has an acquaintance for object is due to the unitive likeness of the acquaintance as object of a former perception to himself as object of the present perception. If the likeness be reduced by certain disguises below the unitive degree, identification does not obtain, and, if a counterpart of the acquaintance be perceived and no extrinsic circumstance such as the simultaneous presence of the acquaintance or a knowledge of the extraordinary resemblance interfere, identification obtains. Such facts are conclusive that empirical recognitive identification is effect of an action of unitive likeness on the mind: that the action is latent is a negative datum of remembrance, for we all remember that our identifications involved no reference to likeness. The likeness acts without exhibiting itself: the action is such that it supposes an unconscious part of the mind that is its theatre, and an unconscious modification of that part of the mind, a modification which is the proximate cause of the knowledge of identity. In empirical non-identific recognition, the mind does not consciously refer to likeness. The recognitional attribute exhibits no likeness to the empirico-recognitive discernment to which it is objective: its significance is addressed to a different discernment, —one that is not empirical. It is objective to the former, but not as a sign: it is significant only to the latter. The discernment to which it is significant must be a comparison, and recognition excludes comparison. I am aware that this statement has an air of inconsist-

ency, but it will be redeemed by an example. I see a dog which I never saw before, and, nevertheless, he exhibits to me an aspect of familiarity, his appearance being unitively like many canine appearances that were formerly objective to me. I do not think of the likeness, I make no comparison between the present appearance and former appearances, the familiarity is an extremely indistinct part of the object of my vision, and to my present discernment signifies nothing; but I have unconscious knowledge of which it is the condition that I have seen many such appearances before, and, if I interrogate the familiarity, it manifests itself as a sign of frequent prior objectivity. The discernment to which it unfolds its signification is not an experience, and it involves a comparison. It follows, that the action of likeness on the mind which causes empirical non-identific recognition is latent. It is essential then, to empirical recognition, to be effect of a latent action of likeness on the mind.

5. An important difference distinguishes empirical recognition caused by unitive likeness from empirical recognition caused by non-unitive likeness. Let us consider an example of this difference. One sees in the distance a thing which is given as being a solid of a certain shape and size. He recognises in it the qualities, colour, solidity, shape, and size, and nothing more. This recognition, if he attend to the object, is unsatisfactory. As he approaches the thing it assumes more and more the appearance of a man and finally makes the observer certain that it is a man. The recognition is now satisfactory. The observer rests in it. The first of these two recognitions tends to make the subject aware of an ignorance, the second to make him

aware of a knowledge. The first excites, and the second satisfies, curiosity. Let recognition of a nature to content the intellect with what seems to be knowledge of knowledge be distinguished as sufficient, and all other recognition as insufficient.

6. It is probable that the action of unitive likeness on the recognitive faculty, if nothing extrinsic to the likeness and the faculty interfere with it, would always cause identification, that non-identific recognition is always due to a cause extrinsic to the likeness and the faculty. When experience does not inform us that there are several individuals of a given type, our recognitions of an individual corresponding to that type are always identifications. All recognitions relative to the type to which the face and figure of Napoleon correspond are identifications; but, if nature had regularly and abundantly produced individuals corresponding to that type, knowledge of the fact would cause the recognitions to be non-identific. If all human males were counterparts of Napoleon, and all human females of Josephine, recognitive identifications of human beings would be impossible,—all recognitions having man for object would be non-identific. That the appearances which cause recognitions of the sun and moon cause identifications and not non-identific recognitions, attests the tendency of unitive likeness to cause identification rather than non-identific recognition. The appearances present a better title to be regarded as appearances of several like things than as several appearances of the same thing; for, until the rotundity of the earth was discovered, it was inexplicable how the sun got back to the east or the moon to any of its visible starting points. The more verisimilar interpretation of the appearances was that they appertained to the several, not to the same.

CXVIII.

1. The individuals that constitute a kind resemble not only each other but also an ideal type, *e.g.*, individuals of the kind, mankind, resemble a mental image of a man. The type may be apparitional or inapparitional; that of mankind is apparitional, that of policy, craft, negotiation, or virtue, inapparitional. The type is really any one of a species of types, *e.g.*, there are as many ideal types of mankind as there are occasions on which mankind is objective, but it is convenient to the habit of thought and, if not to the very structure of the mind, at least to that of language, to pretend that the type is a durable unique,—an archetype,[1]—one which somehow exists in every mind cognisant of the kind it typifies. The name, Idea, is supposed to have been originated by Plato as the common name of such types, and Plato regarded them, not only as durable things, but, as beginningless and everlasting appanages of the mind of God. But though it be discreet and perhaps indispensable to adopt the fiction, we should guard ourselves against the sublime and pious error of Malebranche, Jacobi, and Schelling, that we are immediately, because of participation in divine consciousness, conversant with the Absolute. Let *archetype* be the common name of ideal types of kinds.

[1] A unique is a thing of which no counterpart exists; uniques are either contingent or non-contingent, the former being those that do not, and the latter those that do, exclude counterparts of themselves. A man considered as to his difference from all other men, is an example of contingent uniques; the first cause, time, and space, are examples of non-contingent uniques.

2. Non-identific recognitions of which the objects resemble a given archetype constitute a kind which may be held to be determined by that archetype, *e.g.* recognitions that have horses for objects constitute a kind of non-identific recognitions, which, as having for objects what resembles the mental image of a horse, may be held to be determined by the archetype of the kind, horse. There are kinds of recognitive identifications as well as kinds of non-identific recognitions, and, like the latter, they may be held to be determined by type. The type is not general, because nature has produced at the time only one antitype, but it does not intrinsically differ from a general type. If nature should regularly and abundantly produce corresponding antitypes, it would be general. Indeed, if we suppose that real counterparts of the face and person of Prince Bismarck are occasionally though rarely and irregularly produced, the supposition implies that the type which the Prince resembles is a general one. Empirical recognitions are divisible into kinds determined by types which, according to circumstances, are general or non-general, being intrinsically fit to be either.

CXIX.

In recognition the mind does not consciously refer to the kind to which the things recognised may belong. The immediate object of the recognition resembles the archetype of the kind, but involves no symbol of the kind. When, upon nearing an object that was distant and vague, it assumes the appearance of a man, our curiosity is satisfied by sufficient recognition; the re-

cognition involves no notice of the kind, men. When the burned child recognises the next luminous thing, he sees and apprehends it as subject of a burning quality; the recognition involves no notice of the kind, luminous things, or of the kind, fire. The symbols of luminosity and ardent heat are paramount constituents of his idea of the thing recognised, but it involves no symbol of the kind, fire, nor of any kind whatever.

CXX.

There is a species of recognition of which the *differentia* is that it is the effect of redintegration. The species may be distinguished as redintegrative, and the opposite species as non-redintegrative. The infant's recognition of the flame before experience has taught him that it is the subject of a hurtful quality, is an example of non-redintegrative recognition. It includes no constituent caused by redintegration. Afterwards it always includes such a constituent, and is partly redintegrative and partly non-redintegrative. Before concurrent visual and tactile experience have connected a symbol of solidity with colour, recognition of visual objects includes no symbol of solidity; it is non-redintegrative. Afterwards redintegration contributes that symbol as regards certain colours, so that we visually recognise solids. The recognition is partly redintegrative and partly non-redintegrative. The recognition of clouds is an example of purely non-redintegrative recognition. Redintegration so depends upon, that it cannot obtain apart from, non-redintegrative recognition. Recognition of both kinds is

a normal part of all consciousness except that of the new-born infant. Redintegrative recognition is the source of a knowledge that is erroneously ascribed to Reason and the faculty of generalisation; for example, Mr. Mill, in proof of the doctrine that we reason from particulars to particulars, instances the knowledge of symptoms and remedies which the village nurse derives from observation of individual cases without any corresponding discourse or generalisation, whereas reasoning has nothing to do with the acquisition of her knowledge. Experience had exhibited to her certain appearances as a face, so to speak, of a disease, and when she recognises the appearance, redintegration connects with them the symbol of a like disease. Experience had likewise exhibited to her the imbibing of a certain liquid as a cause of cure, and redintegration suggests that a like antecedent will be followed by a like sequent. The suggestion obtains without question, —spontaneously—as a link in the chain of ideas,—not at all as a discovery,— perhaps without conscious reference to the previous case, not apprehending it as evidence. The knowledge is as little the effect of reasoning as the burned child's intuition of a burning quality in the next luminous solid he sees. The operations of the faculties of recognition and redintegration extend, without the intervention of Reason, or of the faculty of generalisation, to things new to experience,—to objects perceived for the first time—the like of attributes which experience had intuited in like concretes; and intentional action proceeds for the most part on knowledge thus begotten and extended without the intervention of judgment or of general ideas.

CXXI.

It may be thought that I have been needlessly circuitous in my definition of Recognition. I was at pains to expose the *differentia* of certain immediate objects, and to explain that recognition is the discernment supposed by an object so differentiated. Why not define recognition as discernment either of what was previously discerned, or of the like of what was previously discerned: this, apparently, would be more direct. Now, my definition is shaped so as not to express or imply that recognition supposes prior discernment. I have no doubt that such discernment is always the antecedent of recognition, though fact seems to dispute its pretension to be so. Mimicry often exhibits to the eye of recognition the like of what seems, at first sight, to have been previously discerned, but which memory, when fully roused, protests had never been discerned by its subject. Actors, painters, sculptors, and graphic delineators excel and give more delight in proportion as they make distinct to recognition more of detail that, on the avouch of memory, had never been noticed by its subject. On the other hand, it can be alleged that the detail had been abditively indistinct. As for the thesis that recognition *supposes* prior discernment, it is baseless. If a latent action of likeness on the mind can beget a knowledge of identity that often proves to be erroneous, and when true is only accidentally true, why should not that or some other cause beget a recognitional attribute fictitiously significant of prior discernment. It is consistently conceivable, and not remote from

probability, that the repetition of a cerebral process serving as proximate cause of a perception might deliver more into consciousness than its original delivered, and with it a recognitional attribute signifying that the excess of object over the former deliverance had been discerned. Certainly it is not the immaculateness of the mental constitution as regards truth, nor its poverty of resource as regards the origination of figments, that should prevent us from entertaining such a hypothesis. But even granting prior discernment, it is not, on the showing of modern physiology, a cause relatively to recognition. On this showing, we owe recognition to a modification of the brain by a previous cerebration manifested by the prior discernment. The modification is one of the effects of the cerebration, and the prior discernment another. But the prior discernment is a nullity as regards the causation of the recognition. The durable modification which the cerebration left behind receives no help from it when causing the recognition. It may be in necessary connection as being another effect of a part of the train of causes of which the recognition is effect, but in no case does it seem to occupy the relation of cause relatively to recognition. This being so, there seems to be no overwhelming evidence against the hypothesis that the significance of the recognitional attribute is not always true. The hypothesis is corroborated by certain facts that expose a remarkable irresponsiveness of the faculty of consciousness to corporal events by which it is ordinarily excited. Men have received severe and even mortal wounds in battle without being aware of them. The faculty of consciousness absorbed by other events seems to have had no susceptibility to spare to events by which, under ordinary circumstances,

it is vividly affected. It may very well happen then, that only a part of the cerebration caused by a given external cause of perception excites consciousness, whereas the whole of the cerebration reacts upon the brain, so as to construct in it an organ of Recognition, not only in respect of what was originally discerned, but also in respect of what was not.

CHAPTER XVII.

WILL AND INSTINCT.

CXXII.

1. INTENTION is *a bent of the mind to act according to a present guiding idea.* Let action that depends upon intention be distinguished as intentional. The species, choice, is a species of intentional action. A choice is an intentional act that consists of two acts, first, study of two opposite motives intent upon a preference of one of them, second, a preference. It may be defined, a study of two opposite motives intent upon and resulting in a preference of one of them. The study is the affair of an instant. It is important to distinguish the two acts; for one of them is, and the other is not, an effect: the study is, and the preference is not, an effect. The preference is not determined by any antecedent: the person choosing is not necessitated to prefer either of the motives: therefore, as not having a pre-determining antecedent, the preference is an uncaused event. The idea of Choice supposes that the involved preference is not predetermined,—is not the offspring of necessity,—in short, necessity being essential to cause, is uncaused. Will is *power or faculty of choice.* He who denies the freedom of the will denies

the possibility of choice. He who affirms that an event presupposes a cause, denies the possibility of choice. My definition of choice does not imply that choice is possible: it merely expresses what is symbolised by the idea of choice. The terms Volition and Choice are synonyms; they differ only as connoting different aspects of the same thing.

2. Intentional action that involves choice I distinguish as optional; that which does not, as unoptional.

CXXIII.

1. The greater part of perceptible human intentional actions are unoptional; they are not the offspring of choice, nor are they in any way noticed by the faculty of choice. Customary actions, such as eating at regular meal-times, doing the details of business in the accustomed order, taking at the accustomed hour customary recreation, retiring to rest at the accustomed hour,—with such acts the faculty of choice has nothing whatever to do. In ordinary conversation between people who do not distrust one another, no one *chooses* to say what he says, nor is his mind in such an attitude towards the spontaneity of speech that he can be said to permit the words which flow from him. *It is essential to a choice that the mind refer to a binary of opposite motives, one a motive to do, the other a motive to forbear from doing, a certain act: the binary has been termed a practical alternative.* Such a reference is also a condition *sine qua non* of a permission of an intention by the faculty of Choice. Now, the record of experi-

ence in memory attests that no practical alternative precedes or attends the great bulk of human intentions and human intentional actions. It is clear that Will has nothing to do with intentions and acts unconnected with a practical alternative. The idea of the kind, Instinct, should be modified so as to enlarge the comprehension of the kind, making room for the two species, involuntary intention, and involuntary intentional action.

2. In the genesis of the idea of Instinct we find a justification of the proposed enlargement. All actions of animals were at first taken to be voluntary. When it became manifest, or seemed to become manifest, that they are incapable of varying means to suit differences of the circumstances, that they apply means of such wonderful complexity and aptitude as could not be imputed to the invention of the agent, and that the ends related to these could not be made known by experience, nor reasonably supposed to be otherwise made known, it was inferred that the means were applied without knowledge, without intention, and applied by an animal attribute to which was given the name Instinct. Instinct, accordingly, might be defined, an animal attribute which applies means that seem to be, but are not, voluntary. In a word, the *differentia* of instinct may be said to be "quasi-voluntariness."

3. Experience gives us familiar examples of intentional action that obtains *in spite of* the agent. Quasi-attention which resists the utmost efforts of the agent to undo it is an example. When anger, which the subject is interested and strongly minded to dissemble, breaks from his control into expression, the

expression is involuntary,—an example of involuntary intentional action. Those who undertake a life of conduct opposed to their propensities find themselves at once in conflict with the principle of involuntary intentional action. It may be termed intentional instinct. If such a person have been habituated to affectation, affectation will sometimes obtain in him in spite of his utmost effort to prevent it: in respect of it, intentional instinct prevails against will.

CXXIV.

Instinct is divisible into intentional and blind instinct, the latter being that which causes quasi-voluntary action that, unknown to the subject, is a means, *e.g.* the first sucking of the infant. There are instincts that may be distinguished as partially blind. They are intentional in respect of a subordinate end, and blind in respect of a superior one. For example, children eat as a means of appeasing hunger, ignorant that the act is a means relative to the end, nutrition.

CXXV.

The datum, that every beginning has a cause, conflicts with the datum that a volition is not an effect. But this is by no means a fatal objection to free-agency. The former datum has to humble its pretensions to another exception, viz. that a beginning of this or that part of time, *e.g.* this or that hour, day,

year, or century, is uncaused. But even though it had not to lower its pretensions to another exception, Reason would require it to come to an accommodation with the datum of free-agency. As mariners, to prevent the ship from foundering, have sometimes to repair her bottom at sea, so it is the function of Reason to correct and harmonise the data which constitute its very foundation; and in this delicate operation accommodation is always to be preferred to uprooting.

CXXVI.

1. Deliberation has been correctly defined, *study what to do.* It supposes a momentum of the mind towards action. The consideration of what is feasible by the subject, without a pertinent momentum towards action, is not deliberation. Deliberation may be either expectant or selective, the former when it looks for an idea of an acceptable *agendum,* the latter when it is a constituent of choice. Selective deliberation is only another name for the study of motives essential to choice.

2. There are counterfeits of selective deliberation. A man may instinctively look for a satisfactory idea of action,—one competent to make up his mind for him, one which, if it had presented itself contemporaneously with his first discernment of the occasion of action, would, by at once making up his mind for him, have excluded the deliberation. Four or five ideas of *agenda,* none having the instinctive property that contents and decides the mind, may occur to him; at

last, a fourth or fifth, having this property, presents itself, and, at once, makes up his mind for him, imposing upon him the delusion that he has made up his mind for himself,—has chosen. Such counterfeits it is important to distinguish from Choice. The discrimination exposes a characteristic of Volition, viz. that the subject makes up his mind,—has not his mind made up for him.

CXXVII.

1. *The office of will is conduct,*—conduct of the propensities. This office is not proper to will. Intentional instinct is also capable of conduct. It is competent to enlightened prudence to steer the life without the interference of will. It instinctively adopts and proceeds upon rules of conduct, generating conformable ideas of *agenda* which have the property of making up the subject's mind for him. Ambition or cupidity conjoined with craft sometimes instinctively exercises conduct, managing the subject with great skill, in order, thereby, to manage others. The reasons of voluntary conduct are duty, dignity, love of the divine. Not but what the mental attributes which generate the sentiment of duty, affection to dignity, and the love of God, are capable of determining instinctive conduct; and doubtless, in making himself the way, the truth, and the life, and causing himself to be lifted up that he might draw all men unto him, Christ counted upon eliciting instinctive conduct which would lead, in certain cases, to voluntary conduct; but as, in the bulk of men, the attributes in question are short of instinctive force, there would be room for

the intervention of will,—for choice,—for voluntary conduct.

2. *The office of will is to steer, not to propel.* What wind or steam is to the action of the helmsman, that propensity is to will. This truth is sometimes brought home in painful intuition to people suffering from the disorder of which melancholy is the chief symptom,—especially to the philosophic patient. The ebb of force from the propensities threatens to strand them on apathy. I mean by apathy, not privation of all emotion, for horror replaces motive, but, privation of motive. The ebb of motive seems to them to be the ebb of voluntary power. It is only when wisdom, and possibly prudence and craft, demand painful resistance to propensity, that will has opportunity. Propensity is competent, without the aid of will, to transact, and does in fact transact, all the ordinary business of life. Even conflict of motives occasions but rarely the interference of will; for the most part, the strongest motive prevails and instigates; it makes up our mind for us. Ignorant that the subversion of propensity involves the subversion of will, Stoicism proposed to found an empire of Will on the ruin of propensity. Asceticism tends to fall into the same error, and, sometimes, in a passion of propitiatory obsequiousness, would fain efface both will and propensity, and substitute an adoring godliness. Mummies of worshipping bulls are found in Egypt, the knees bent and the eyes turned adoringly upward. The asceticism to which I refer would fain evacuate created conscious being of all but the animus thus symbolised; no movement of intellect, no variety of emotion, should disturb the eternal monotony of the worship it affects.

A right understanding of the dependence of volition on propensity rids Christian practice of ascetic distortion, and restores the Christian life to the largeness and ease enjoined by the example of one who professed that he came eating and drinking,—who frequented marriage feasts and all manner of innocent festive gatherings.

3. Conduct is either regular or irregular, the former when the agent refers to a rule extending through a kind of occasions, the latter when his view is confined to the present occasion. According to Christianity, regular conduct has for its chief end the reformation of the propensities, ("sanctification") the subordinate end being the conformity of the practical life to moral dignity[1] and the welfare of society. Perhaps the most momentous difference between Rome and Protestantism is, that Rome clings to the trust which expects sanctification to result from Christian conduct, whereas Protestantism has drifted into the belief that the hope is Utopian.

CXXVIII.

I have incidentally referred to permissions of the will. I now proceed to explain exactly what they are. A voluntary being is responsible, not only for his volitions, but also, for voluntary omissions. He may detect the culpability of an instinctive intention previous to corresponding performance, and not arrest it. This is what has been happily termed a "permission of the will." It is not an act, it is not a volition.

[1] I understand the term "moral dignity" to denote the *differentia* of virtue or moral goodness.

We have therefore to distinguish volitions from permissions of the will. A free agent is as responsible for his permissions of the will as for his volitions.

CXXIX.

1. It must be acknowledged that the argument of the Necessarian presents a potent plausibility to those to whom induction has displayed the immensity of the domain of law. This is amply attested by its success with men of science. Philosophers who hold to the existence of will have no better ground than the *datum*, that it exists. If their opponents could show that the *datum* is inconsistent, they would be obliged to surrender. This, happily, the necessarian has failed to show; but nevertheless, the advocates of freedom find it difficult to keep their ground against the torrent of evidence that necessity, under the form of law, determines all event,—evidence backed by proof that instinct counterfeits the aspect of will, and, under that seeming, transacts nearly the whole of the practical life of man, that data are at the best a *pis aller*, and that belief in free agency is itself a transgressor of a datum, viz. the datum that Event is effect. Now what behoves if the evidence beget doubt? Belief, or some equivalent of belief, in will, is the pivot of virtue. Self-denial is essential to virtue, and, to believe that necessity determines all our acts, is to believe that we are incapable of self-denial. A thorough conviction, a heart-conviction, that we are without power of choice, carries with it moral paralysis. Although doubt does not paralyse, it makes us weak against temptation.

And in proportion as temptation prevails, it diminishes our power of resistance and enfeebles our moral faculty. Has the faculty of intentional action no resource in this emergency?—Is it challenged by no duty? An *arbitrium* is possible,—a decree that Will exists, that we are responsible. A man may pledge himself to act for ever according to this decree, and, by his conduct to the end of life, justify the pledge. Taking Christ for his model he might, by ordinate self-denial,[1] improve his instincts and make probable the possibility of man becoming Christlike. Think of it, a world of Christs!—Christlike lovers,—Christlike husbands and wives,—Christlike parents and children,—Christlike citizens! Humour, mirth, sport, festivity, æsthetic enjoyment, of Christlike men! To abandon a chance of contributing to such a promotion of his race, to abandon the cause of human dignity and happiness—the cause of wisdom,—rather than interfere with the impotence of doubt, to drift upon doubt into moral perdition,—is not this as unmanly as it is unwise? And what though the *arbitrium* cleave to an error, if it achieve for man the greatest possible dignity and happiness? By making him master of himself, it augments his mastery over Nature, and mastery over Nature is the paramount end of science. Truth, or the agreement of belief or assertion with what is and what is not, is also an end of science, but subordinate, and of infinitely less importance. Wisdom, common sense, prudence, and purity (the principle of our nature that is averse to the opposite of dignity) concur

[1] Ordinate self-denial excludes the application of bodily pain and all mental pain save what is incident to the avoidance of evil and needful for growth in wisdom. It is compatible with innocent mirth and innocent enjoyment of every kind.

that it is unworthy to rot in doubt, being free to lift ourselves, by an *arbitrium*, out of the mire. And to this we are incited by the consideration that *the main argument of the necessarian is a petitio principii.* He sets up as an axiom, as though the opposite were inconsistent, that preference of one of two opposite motives supposes the preferred motive to be the stronger. It does not. The idea, that a man is free to prefer the weaker member of a practical alternative, is perfectly consistent and has the sanction of a datum. Dignity or duty may be opposed in the alternative to strongest desire, and, for the sake of it, the weaker member of the alternative may be preferred. Induction finds it probable that the weaker motive is sometimes preferred. A man in middle life may turn from doing wrong, pledge himself to live for the future according to Christian principles, and live accordingly to the end of his days. Is it to be supposed that he is never solicited after his conversion by a bad motive stronger than the Christian one which he prefers? This I maintain is not probable; experience of temptation by the religious attests the contrary.

2. The necessarian alleges that predictableness of human action proves the empire of necessity over all human action. It proves no such thing. Regularity of conduct would be characteristic of a reign of will, and the regularity would be a condition of predictableness. Human intentional action, however, has been predictable not because the agents were free, but because they were instinctive; for will has meddled but little with human action.

CXXX.

When an emotion that is the effect and manifestation of a propensity is more than a mere velleity, and is not held in the condition of mere motive by the opposition of an emotion caused by any other propensity, it tends to become an intention, and to be converted into one, needs only to be united with the needful idea of an *agendum*. If it refer to what can be presently done, it necessarily causes present performance; if to performance after a certain interval, it assumes the air of being the offspring of deliberation, and commonly passes for that with its subject. We are on the way to discover for ourselves how copiously nature uses delusion when we detect her making us her dupes in this respect. If the reader will be vigilant for the detection of this imposture, I engage that it will not be long before he discovers strong and important intentions that pretend to be but are not the offspring of deliberation. He will find that his mind is made up for him without his participation. Resentment is apt at this kind of imposture.

CXXXI.

Allowing what I shall prove by-and-by, that a body either comprises or *is* a part of the mind, is the body the apperceptive agent supposed by Choice? Does it by its unconscious action make itself a subject of consciousness, and so fit itself to be a choosing agent, or

does it by that action capacitate a non-corporal thing —a soul—to be such an agent? If the latter hypothesis be true, volition is distinguishable from all other mental event as being purely psychical,—as being neither an unconscious action of the corporal part of the mind nor an effect of one. That action contributes the indispensable occasion and circumstances of volition, the needful apperception and practical alternative, but it contributes nothing as cause to the act constituting the preference. If the opposite hypothesis be true, and if, nevertheless, volition be possible, then the uncaused act involved in choice is distinguishable from all other mental event as one that is neither an unconscious mental action nor the effect of one. Every other mental event either is, or is the effect of, an unconscious action of the corporal part of the mind. This, by the way, is a fact with which it is important to familiarise the mind in order to break up and altogether destroy the native and habit-rooted error, that such events as attention, speculation, judgment, reasoning of every kind, are purely psychical acts and indeed volitions.

CXXXII.

1. Attention is not volition. It is not the immediate sequent of a practical alternative. It is no more a volition than the muscular contraction which in obedience to intention lifts the hand. Whenever one looks or listens he attends, but looking or listening is not choosing. If it were correct to say of acts consequent on volition that they are voluntary, attention consequent on volition is voluntary; but the distinction I

have made between will and instinct calls for a corresponding alteration of the adjective, voluntary.

2. There are degrees of emotive impulse that put will in abeyance. It is only in the temperate zone of emotion that man is voluntary and responsible. Ignorant of this truth society has exposed the individual to inordinate risks, and exacted of him impossible forbearance.

CXXXIII.

1. A free agent must either be, or involve, a soul. To prove that man has not a soul would be to prove that he is not a free agent. Modern physiology has been discrediting the doctrine of the soul by evidence that the soul is a supernumerary in the economy of life, that it has no office, that things which cannot be supposed to possess a soul manifest both life and consciousness. Has it thus made good that man does not possess a soul? Has it annulled the *datum*, that a man is a durable thing? Has it shown that, like the projected part of a fountain, he is a mere series both as to matter and form? If it have, it has emptied Being of dignity. But happily we are still able, in the name of dignity and common sense, to hold to the negative.

2. When physiology showed that the human body is a mere series, philosophy, tenacious of the fundamental *datum* that man is a durable thing, judged and taught, and common sense universally accepted, that the durable constituent of man—the soul—is the subject of consciousness and the principle of life. Death was

regarded, not as the annihilation of the soul nor of a mere bodily attribute, but as the cessation of a relation between soul and body on which life depends. If physiology should succeed in showing that life does not depend upon a soul, common sense would not therefore be driven to surrender the *datum* of a human temporal identity that measures at least the interval between birth and death: it could still hold that the durable constituent of man is the subject of consciousness. Indeed, the author once found himself so pressed by the besieging physiological evidence that he was obliged to retire into this citadel; but at last a successful sally cleared the town of the enemy. Though all be not lost by such a retirement, yet so much is lost, because of the intimacy of the relation between life and consciousness, that it behoves the party of wisdom to be tenacious of the dependence of life upon the soul.

But to hold our ground, we must humble ourselves to an alliance with the lower animals, and even the vegetable kingdom. This was obvious to Bishop Butler, who therefore rebuked the human arrogance that denied souls to the lower animals. Let us allow that whatever has life has a soul, and that the rank of the soul depends upon that of the connected body; that in the vegetable kingdom, and perhaps throughout a considerable part of the animal kingdom, the body has not the wherewithal to make the soul conscious, and that all the action in that region which seems to manifest consciousness and intention is reflex. In connection with a human organism a soul acquires the possibility of becoming a free-agent and a subject of wisdom. We may even sanction an eclectic reconciliation between spiritualism and materialism. We may adopt the consistent hypothesis, that Certain atoms are qualified to be,

in certain relations, subjects of the quality, life, and, in others, of both the quality, life, and that on which depends the occasional attribute, consciousness. The quality of the atom on which life depends may bear such a relation to life as inactive power bears to force. In certain relations the power, combustibility, is inactive, in others it is active and thereby becomes force. So, apart from the relation in which an atom is the cardinal atom of an organism its quality on which life depends is not life, but *is* life when the atom is in that relation. Outside of the relation in which an atom is qualified to be a subject of life it may be part of an inanimate thing, *e.g.* a stone. This hypothesis is the reverse of prepossessing. It has no grace to compensate, in the view of common sense, the repugnancy of its novelty. It has nothing to recommend it but its consistency and the fact that it is the only visible plank within reach of the drowning *datum*, that animals and plants are durable things. Before we surrender to the monstrous and degrading thesis, that our father, wife, child, or friend, is nothing more than one or other of a series of bodies formed out of food, common sense demands that we shall either hold to the *datum* against the rebutting evidence, on the ground that deduction is not good against so fundamental and important a *datum*, or adopt any consistent hypothesis, however improbable, that saves the doctrine. For my own part, I employ the hypothesis as a mere measure of defence—a temporary intrenchment against the evidence that is for killing the soul. I confront the evidence with a consistent hypothesis, and so paralyse its pretension to be demonstrative. Note that our knowledge of matter is all but confined to knowledge of body, and that of atoms we know nothing directly from experience. For

all we know, atoms (if they exist at all) may not be even solid—may not have extension. Experience therefore has nothing to object to the large possibilities which the hypothesis claims for its "cardinal atom."

3. Before presenting and refuting the evidence against the dependence of life upon the soul it is necessary to define the terms, life, nutrition, organ, and function, to show that there is such a species as *non-vital functional action*, and to augment the extension of the kind, reflex action, so that it shall embrace, as one of its species, non-vital functional action, and, as another, unintentional reaction proper to living things and things that have lived whether attended or not attended by consciousness.

Life seems to be undefinable except on the condition of regarding the kinds, animals and vegetables, as primary, (§ lxvi.) and assuming that our knowledge of them is scientifically sufficient without definition. On this condition Life may be defined *the quality* (§ ci. 2*c*) *proper and common to animals and vegetables.*[1] It is not definitively indicatable by nutrition nor by function, although Comte and Blainville held the former to be

[1] The invariableness of the connection between bioplasm and life and between bioplasm and germs has given rise to the notion that life is not proper to animals and plants, but belongs also to a *material* that is a matrix of animals or plants. According to this notion a seed in a grocer's shop, though not a plant, is a living thing. If the above definition be valid, a germ, as not being an animal or a plant, is not a living thing; nor indeed is a part of an animal or plant a living thing. When such a part ceases to be an organ—loses the quality in virtue of which it *was* an organ—it is usual to say of it that it is dead. The predicate is untrue except it be regarded as metaphorical or determined by a secondary meaning of the terms, life and death. Death is not truly predicable of that which has not lived, nor, therefore, of a mere part of an animal or plant.

the essential part of life, and Bichat held life to be a sum of functions. This will be obvious when we ascertain precisely what nutrition and function are.

According to the common notion of nutrition it is a process which a single *durable* body undergoes and in respect of which the body is at once agent and patient. The notion is erroneous. Not a single body, but a series of bodies, is the agent and patient concerned in nutrition. It causes a series of bodies each of which save the last is a part of the cause of the succeeding one. Nutrition is *a process of concurrent decomposition and recomposition that causes a series of bodies which tend to pass for a single durable body, each body of the series, save the last, being an agent in respect of the process.* The movement of water projected from a fountain is a partially analogous process. It causes a series of bodies that tend, only in a less degree than the series caused by nutrition, to pass for a single durable body; but no unit of the fountain series is agent in respect of the process that causes the series. The cause of the movement is altogether extrinsic to the units of the series, whereas each unit of the series caused by nutrition, save the last, is, in respect of the nutrition, agent. Growth is a species of nutrition, viz. nutrition that makes the dimension of each succeeding body greater than that of the preceding one. Now, if it be true that the hair of a corpse has grown, it is not true that nutrition depends on and is a definitive sign of present life—is what can be correctly termed a vital event. The evidence for *post-mortem* nutrition may not be conclusive, but it suffices at least to postpone the dogma, that life and nutrition are inseparable.

When the sarcode refuted Bichat's definition of life those who were tenacious of the mutual commensurate-

ness of life and organisation were for reforming the idea of organ so that it should no longer symbolise a correlative of an organism, (a complement of organs) and, accordingly, we are taught in the *Physical Basis of Mind* (page 7) that—"There are organisms that have no differentiated organs. Thus a microscopic formless lump of semi-fluid jelly-like substance (Protoplasm) is called an organism because it feeds itself and reproduces itself." This is a needless and perplexing inroad upon the ideas of organ, organism, and function. According to those ideas an organ is correlated to an organism, *i.e.* it is one of two or more organs of one and the same animal or plant; and function is proper to organs. Science is not a gainer by the substitution of an idea of the organ which admits that an animal or vegetable may consist of but one organ. Ideas and language may be made convenient to biology without such violence. An organ is *one of two or more parts of an animal or vegetable body, parts differentiated by difference of aptitudes in respect of kinds of acts which compose the natural history of the body.* A function is *an act or a series of acts of the kind in respect of which an organ is apt.*

Aptitudes that differentiate organs may be distinguished as functional. An organ supposes a functional aptitude, but not a function. The hand, eye, and ear of the new-born infant, because of their functional aptitudes are organs, though they have never functioned and might never function. Vital acts—acts dependent on present life and on which the continuance of the life of the subject depends—may be either functional or non-functional. Those of the sarcode, as not having organs for agents, are non-functional. Functional acts may be either vital or non-vital. The growth of hair

or nails in a corpse is an example of non-vital functional acts. The behaviour of a corpse under voltaic stimulus, the contraction of the pupil in response to the impact of a beam of light when the eye is one detached from a recently-killed animal, are examples of non-vital functional action.

The increase of extension of the kind, reflex action, by the addition of the species, non-vital functional action, calls for a new definition of the former. Reflex action is *unintentional reaction proper to living things and the remains of living things.* This definition enlarges the extension of the kind so that it embraces not only non-vital functional action but also unintentional reaction of which the agent is conscious, such as the counterpoising lifting of the leg when one has slipped and is falling backward. The term, reflex action, commonly signifies reflection by an efferent nerve of an impression conveyed to a nervous centre by an afferent nerve. According to the altered signification this kind of action may be distinguished as efferent. Reflex action comprehends the species vital action, *e.g.* nutrition, reproduction, etc. According to the late Mr. Lewes (*Physical Basis of Mind,* page 354), "The reflex theory once admitted, a rigorous logic could not fail to extend it to all animal actions." Although I have restricted reflex action to unintentional action, I think that it might be advantageously extended to all action proper to living things and the remains of living things, volition excepted. In that case the terms, reflex action, and instinctive action, would with a mere difference of connotation denote the same thing. The contrastive opposition of reflex action and volition would illuminate the great office of will during the

first era of human development, namely, the transference of man from one kind of reflex action to another, from primary automatism, which makes him puppet, dupe, and victim, to a secondary automatism conformable to wisdom, bearing to it the relation of a well-equipped ship to its master, and, together with will, constituting wisdom.

4. Two hypotheses respecting the nature of life dispute human belief: one of them may be denominated the psychical and the other the anti-psychical hypothesis. According to the former, life depends upon a relation of a single durable part of a living thing to its other parts, a relation in virtue of which the single part is cardinal in respect of its whole, and constitutes the whole a durable individual. Each of the non-cardinal parts of what are known to human experience as living things is a series, not a durable individual: the duration of the cardinal part of the living thing compensates the instability of the non-cardinal parts, and, in spite of their incessant changes, constitutes the whole a durable individual. According to the anti-psychical hypothesis life does not depend upon such a relation: an animal or plant is at any given moment comprised by atoms or molecules that serve it as constituents for only a brief part of its duration, and certain of the parts of the obvious animal or plant are really unobvious animals or plants, having lives of their own independent of their respective wholes, lives capable of persisting if the parts be detached: the life of the obvious animal or plant is either the sum of the lives of its parts, or a life somehow begotten of, and dependent upon, these. The psychical hypothesis has the support of two funda-

mental *data*, one, that animals and plants are durable things, the other, the *datum* involved in a man's apprehension of himself as being the same throughout time of which he has remembrance. To whatever in man affects human dignity the hypothesis is commended as sacred. If there be no soul, volition is impossible and moral goodness has no rational support. The opposed hypothesis grounds its right to credit on the effects of fissiparous generation, mechanical division of animals and plants, and the behaviour of fragments of mutilated animals. A cutting develops into a plant like its whole. The tail part of a worm cut in two evolves a head, and the head part a tail, and both become perfect worms. Granting that in these cases the plant or animal contains a durable part, one or other of the divided parts must be separated from it and, nevertheless, both not only manifest life but develop into perfect plants or animals: hence the conclusion that the life of at least one of the parts could not have depended on any thing in the whole answering to the idea of a soul. The conclusion is a *non sequitur*. Let A and B signify the divided parts and C the cardinal part. Suppose the division to leave C with A. It may now be the cardinal part of A as it was before of A B, and an atom of B may become its cardinal part, originating a new life and a new living individual. It is more convenient to common sense to put up with this explanation than to throw overboard the temporal identity of its subject. As for the behaviour of fragments of mutilated animals, its evidence is refutable without taxing common sense to make itself at home with a *pis aller*. I have shown that owing to the attributes, orderly and disorderly concurrence of attributes, substance is all but omnipo-

tent for good and evil. By virtue of the former it is the unconscious cause of evolution, of the order about which astronomy is conversant, of the processes by which the earth has become what it is, of the production of the conditions of life and of the mind of man. Its unconscious power is the undesigning cause of all design, of all ratiocination, of poetry, music, eloquence, wit, craft, emotion, in fact of every event whatever except volition. In view of this wealth of resource we should not presume to judge that, in the domain of reflex action, it is incapable of *mimicry of intentional action.* When we see the parts of an earwig or Australian ant that has been cut in two turn upon each other and apparently fight to the death, or the trunk and legs of a headless frog behave as though they were furnished with sensibility and intelligence, we should not conclude that mutilation can promote a rump into an intelligent animal: the opinion that in such cases non-vital reflex action mimics intentional action is less extravagant—more congenial to common sense. When the senseless polype seeks the light or seems to fight for food with another polype, we should see in the act mere mimicry of intentional action. The mimicry of prescience and providence wrought by the instincts of the lower animals should teach us to forbear from setting bounds to the capability of reflex action in respect of mimicry. It is probable that the behaviour of the somnambulist is mere mimicry of intentional action—mere unconscious reflex action.

The psychical hypothesis implies that death cannot be gradual—that there is no such thing as dying by inches—no such thing as the death of a part of an animal or plant. Death is the cessation of the relation between soul and body on which life depends.

For aught we know to the contrary asphyxia might involve a cessation of all function without causing death. The distinction between somatic and molecular death is groundless. There is no such thing as molecular death: loss of functional aptitude of a part of the body is not a death of the part. A thing that is part of an animal or a plant may be made by detachment a living thing; but *quâ* part it is not a living thing and is therefore unsusceptible of death.

As regards explanatoriness the psychical hypothesis leaves nothing to be desired. It explains that certain corporal events affect the soul so as to make it a subject of consciousness, that in the absence of such events the soul is unconscious, that, being made conscious and the consciousness involving a practical alternative, the soul is qualified to choose. This agrees with the data, 1st, That a man is a durable individual, 2nd, That consciousness has a subject, 3rd, That man is a free agent, 4th, That consciousness excludes extension—is not a corporal event. It confirms the credit of the datum-giving faculty, and therefore that of common sense. It exempts from the necessity of considering such inconsistent hypotheses as the vibratiuncles of Hartley, rebaptized by Lewes neural tremors—indeed from the convulsive dialectic that in any way strives to identify consciousness with corporal event. And how futile are the objections to the psychical hypothesis. Forsooth, it is inconceivable that soul and body could act upon one another!—anatomy had not been able to find the soul with its scalpel!—the principle of parsimony objects that the soul is superfluous! So conceivable is the interaction of soul and body that it has been matter of common belief to the bulk of men for ages. There is a false

presumption abroad that, to know a cause, is to know how an antecedent operates; and, as the idea of psychical causation in respect of corporal events affords no room for such a knowledge, it is held that reality cannot correspond to the idea. I have shown (§ lxiii. 12) that, considered in respect of immediate effects, knowledge of cause is *not* knowledge how an antecedent operates. Between a dynamic event and its immediate effect intervenes no event—no event the indication of which could be an answer to the question how the dynamic event causes. To those who are distinctly aware of this truth the idea of psychical causation is beset by no mystery or difficulty that does not equally embarrass that of corporal causation. If the anatomist have not found a soul with his scalpel, neither has he an atom nor even a molecule; and as for the principle of parsimony, its pretension to abolish the soul deserves nothing better or worse than a smile.

CHAPTER XVIII.

GENERAL IDEAS.

CXXXIV.

1. An idea of a Kind may symbolise the kind as a whole, or as a sum of the parts,—in the one case veiling the severality and enhancing the aspect of unity, in the other enhancing the aspect of severality, and obscuring that of the unity. The idea of all men congregated on the Day of Judgment symbolises a kind as a whole; that denoted by the term, all men, in the proposition, all men are mortal, symbolises a kind as a sum of the parts. What is predicated of a kind symbolised as a whole is not supposed by the predication to be true respectively of its individuals, whereas what is predicated of a kind symbolised as a sum of the parts is supposed by the predication to be true respectively of its individuals. An idea of a kind symbolised as a sum of the parts is supposed by the predication to be true respectively of its individuals. An idea of a kind that symbolises the kind as a sum of the parts is general; one that symbolises the kind as a whole is non-general. But a general idea is not therefore definable as one which symbolises a kind as a sum of the parts. There are

ideas of kinds that symbolise the kinds neither as wholes nor as sums of the parts. The idea of solidity is such a one. It inconsistently symbolises the kind as a monad pervading a multitude of subjects, viz. solids. The plurality of the kind is hidden from ordinary discernment, and has been hitherto only vaguely discerned by philosophic scrutiny. Such ideas have been correctly classed as General Ideas or Concepts, but not hitherto under the sanction of a correct definition of such ideas. The classification obtains this sanction when we define a general idea to be an idea of a kind that does not symbolise the kind as a whole. This definition excludes from the kind, general ideas, such an idea as that of a congregation of all men, and makes room for ideas of kinds that hide the plurality of the respective kinds.

2. The terms "general idea" and "concept" are synonymous. The term Conception has two meanings; first, discernment of which the immediate object is a general type, second, the faculty of that kind of discernment. A concept is the immediate object of a conception.

3. Concepts are either *abditive* or *inabditive*; the former being those that do, and the latter those that do not, hide the plurality of the kind they symbolise. Concepts symbolic of the concrete, *e.g.* concepts of men, horses, circles, angles, are inabditive; those symbolic of the inconcrete, *e.g.* of solidity, weight, justice, dignity, are for the most part abditive. General ideas of the inconcrete attributes, figure, colour, odour, heat, cold, although symbolic of the inconcrete, are inabditive. The abditive concept has overlaid the plain face of concrete and attribute with confusion and mystifica-

tion. Besides hiding the plurality of the kind it pretends to symbolise, it occasionally and not rarely symbolises the kind as a concrete which somehow penetrates, and, so to speak, inhabits, a multitude of concretes, transforming into a concrete what experience for the most part gives as a sum of attributes. Take for example the abditive concept symbolic of Solidity. There are as many solidities as solids, and there are such species of solidity as hard, liquid, and aeriform solidity. If this severality be hidden the kind must be conceived as a monad, and, as this monad cannot be conceived as depending on this or that solid as attribute upon subject, it tends to pass for a concrete pervading a multitude of concretes; and such in fact is the common notion of Solidity when not brought to book. Thus what is given by experience as an attribute is represented by the abditive concept as a concrete. The stone, the lead, the lake, the gas, are so many concretes that are pervaded by the "monadic" concrete, solidity. Its deceitfulness is probably helped by the proper name which the lingual instinct annexes to the kind it symbolises. Proper names are for the most part applied to concretes, and, the names of kinds symbolised by abditive concepts being proper, habit will have it that the thing denoted is a concrete. But it is probable that, as regards the tendency of the mind to mistake attributes for concretes, the abditive concept is not the only culprit. There seem to be minds to which experience gives as concretes what are commonly apprehended as attributes. The abditive concept does not seem to be responsible for the ideas of forces as being concretes, ideas avowed by two of the originators of the theory of the correlation of forces,—Mayer and Colding.[1]

[1] See *Problems of Life and Mind*, page 250.

Positivism is a revolt against the tendency, but not a temperate one: it assails not only the concreteness, but also the reality, of attributes that are not appearances (§ ci. 2*b*). A flash of intuition revealed to the writer that experience itself is capable of involving the inabditive concept. While for the first time in the gallery of the Louvre, after he had seen perhaps three or four pictures of Claude Lorraine, on seeing a fourth or fifth there sprang into the view of his mental eye an appearance that seemed to be a monad pervading all the Claude pictures. It was their style,—the style of Claude,—but the writer did not then know that this dazzling novelty was not a unique, that it was a species of the genus, Style. On seeing in the distance a fifth or sixth picture of Claude, he divined it, by its participation of the putative monad, to be a Claude. He did not infer, he *intuited*, its relation to the other pictures and to Claude. In this instance a visual intuition involved an abditive concept symbolic of the *differentia* of a species of pictures,—the species, Claude's pictures. By the way,—the intuition refutes Nominalism as against Conceptualism.

4. Concepts are either mediate or immediate. A mediate concept is one that symbolises a kind by means of an individual serving as type of the kind. An immediate concept is one that symbolises a kind without the mediation of such an individual. The idea corresponding to the term, a triangle, in the proposition, The three angles of *a triangle* are equal to two right angles, is an example of mediate concepts. The idea corresponding to the term, mankind, in the proposition, *Mankind* is a species of the genus Vertebrata, is an example of immediate concepts. It

symbolises a kind without the mediation of an individual apprehended as type. Mediate concepts may be, but are scarcely ever, and never spontaneously, symbols of inapparitional kinds. Those that symbolise apparitional kinds, *e.g.* mathematical figures, consist of an image and an inapparitional constituent in virtue of which the image is a type,—is analogous with a sample. Let the individual serving as type in a mediate concept be known as the "nucleus" of the concept, and let mediate concepts relative to apparitional kinds be known as "apparitional." The nucleus of an apparitional concept may be either an ideal image or an image given as being a reality, *e.g.* the triangle A B C on the blackboard. The discovery of the method of constructing an equilateral triangle must have been by means of an ideal image; for nature affords to observation no such figure as the mutually intersecting circles and contained triangle without an image of which the method is unknowable. A real figure of the kind must be the offspring of invention, and must therefore have been preceded by an ideal pattern. When a geometrical discovery elicited the cry of *εὕρηκα!* the discoverer was in a bath, not before a blackboard.[1] But although original geometrical discovery is not possible without the ideal image, the nucleus of the pupil's first geometrical concept serving as pivot of a deduction is always though not necessarily a percept,—a reality,—a diagram. The diagram is apprehended as general type,—as a sample of a kind,—and is thereby qualified to distribute to all its antitypes, not as Mr. Mill held, by a second effort, but

[1] The dependence of *original* geometrical discovery on the purely ideal concept refutes Mr. Mill's doctrine that it results from experiment on a diagram.

at once, the like of whatever deduction finds in the type. Accordingly, mediate concepts are divisible into those that have, and those that have not, a reality for nucleus. Let the former be known as realistic, and the latter as purely-ideal. The purely-ideal mediate concept refutes a part of the negation of Nominalism.

5. Purely-ideal mediate concepts are familiar things. *Design* is a process of construeting such a concept or pattern, *e.g.* that of the kind, steamboats, which obtained in the mind of Fulton before he constructed the first real individual of the kind. Our needs suggest to us ideal images of the things needed, —images that bear to certain things external to the mind the relation of type to antitype, of sample to that from which it is drawn,—images through which we somehow refer to a kind, store, or scattered supply, containing an individual that may be separated and appropriated. The ideal type may not perfectly resemble any one of its types, and these may differ from one another as much as a war-horse from a Shetland pony, a St. Bernard dog from a village cur; but the differences do not hide the likeness that makes the mental image a type. The ideal type evinces mental thaumaturgy in another way. The inventor's ideal type of the forthcoming kind is never accompanied by an image of several antitypes given as being the kind or a part of the kind. When with his mind's eye he sees antitypes, the type is not objective. Judging in advance of the pertinent experience, one would suppose that an object could not possess the quality of type without the presence of other objects given as being the correlated antitypes, or as being symbolic of the correlated antitypes, but memory protests that a

spontaneous conjunction of an ideal type with images symbolic of antitypes never obtains. The inventor has unconscious knowledge that the image which his ingenuity has fashioned refers to an expected kind, and it is not improbable that the mental condition supposed by this knowledge contributes to impart to the invented image the quality in virtue of which it serves as type.

6. The thesis, that concepts of the concrete are complete appearances, is amenable to the objection that it supposes a single appearance to be a type relatively to different kinds, *e.g.* the appearance of an acute angle to be type, at one time, of the genus "angles," at another, of the species "acute angles;" which, the objector contends, is impossible. The answer is, that when an appearance of an acute angle is type or concept relatively to the genus, angles, its acuteness is abditively indistinct, and when relatively to the species, acute angles, it is either distinct or inabditively indistinct. The idea of the kind, angles, must precede ideas of acute, right, and obtuse, angles, and, then, its symbol of acuteness, rectitude, or obtuseness, must be extremely indistinct. I say it must precede; for angular acuteness, rectitude, and obtuseness, are not distinctly discernible in advance of the light which they contrastively reflect upon each other, and it is extremely improbable that this contrast always occurs in the experience which first begets, in this or that person, his idea of an angle. The opposite supposition demands that we never come by the idea of an angle until we have seen at least three angles of different species together.

7. Purely-ideal mediate concepts, like the objects

of fancy, are mere figments; but the former are so put that they passed with the Realists for realities, whereas the latter impose no such illusion. The utility of the concept is none the less that the concept is a figment. It mediates as usefully between the Ego and all beside as though it were real. It is vicarious of reality, and a condition *sine qua non* of a large part of human power.

CXXXV.

1. Concepts are commonly supposed to depend upon a mental process termed Abstraction. I contend that the mental process termed abstraction is not fitly denotable by that name; that what are termed Abstract Ideas are mere terms which substitute and do duty for ideas; that, therefore, concepts do not depend upon a process fitly denotable by the name "abstraction," and are not abstract ideas. The doctrine of Abstraction seems to imply that there are three species of abstraction. When bodies are objective, either to perception or to imperceptive discernment, their qualities are, for the most part, indistinct; but they are sometimes distinct, *e.g.* the weight to a man staggering under a heavy burden, the burning power to the burned child, the hardness to one who has a stone for a pillow, the momentum to a man struck by a missile, the colour to one who is surprised by a remarkable change of colour, the motion of a body in unaccustomed motion. From these experiences, constituting what I term *analytic sense-perception,* we derive ideas of qualities which become familiar objects. The discernments involved in these experiences presuppose, it is held, a mental

process which, by obscuring the symbols of other qualities of an objective body, promote into distinctness one of its qualities; and to this process philosophers have assigned the name Abstraction, distinguishing as abstract the ideas of qualities which it generates. Again, discernment of kinds seems to presuppose discernment, not only of general likeness between the individuals of each kind, but also of parts or relations in respect of which the individuals are perfectly like one another, these parts or relations being promoted into distinctness by the obscuration of the parts or relations in respect of which the individuals differ from one another. The putative relief thus given to the basis of general likeness whereby attributes that are usually indistinct are raised into distinctness, is imputed to a mental act which is accounted a species of abstraction, viz. detection of an attribute consequent to scrutiny in quest of the thing found. For example, I look for the attribute in virtue of which this coin belongs to the species Wealth, and discover that it consists in an *importance* determined by utility and scarcity. The putative abstraction on which analytical perception and, in respect of primary kinds, generalisation, are supposed to depend, is not attended by nor consequent on such scrutiny. Now, if the name, Abstraction, be fitly applicable to these three kinds of mental event, there are three species of abstraction, viz.—1st, sense-perceptive abstraction or analytic sense-perception, 2nd, spontaneous general abstraction, 3rd, abstraction consequent on scrutiny. It is pretended that abstraction generates ideas of the inconcrete unconnected with a symbol of the concrete, *e.g.* an idea of solidity unconnected with any ideal symbol of a solid, an idea of virtue unconnected with an ideal symbol of a virtuous

person. Such ideas, accordingly, are termed Abstract Ideas. It is not pretended that when these ideas obtain the mind is abstracting, but merely that by virtue of former abstraction they are withdrawn from connection with a symbol of the concrete. This supposes an important difference between ideas of the inconcrete when the mind abstracts, and abstract ideas. The former are, and the latter are not, connected with symbols of the concrete. When abstracting we are supposed to see the concrete envelope, whereas abstract ideas are altogether detached from the concrete. Here then is a need of explanation that has been overlooked. The ideas of the inconcrete contemporary with abstraction are not abstract ideas. They differ from their putative offspring, abstract ideas, as being connected with symbols of the concrete.

2. The metaphor which pretends to exhibit the promotion of an object from indistinctness to distinctness as a species of abstraction is false and a source of error. Analytic sense-perception does not withdraw from the concrete the inconcrete which it discerns. When we discover a basis of general likeness of concretes, whether as a result of scrutiny or otherwise, the basis is discerned as being in connection with the concrete, the total object of the discernment being a concrete or sum of concretes, *e.g.* the value with the coins. Then, in so far as the metaphor has contributed to beget the theory of Abstract Ideas, it has deluged philosophy with fiction. We think of, and reason about, such attributes as virtue, cause, love, anger, violence, dignity, without having in view the concretes, apart from which they could not subsist. Have we then corresponding ideas of these constituents,—ideas symbolic of them, not as

distinct elements of contemporary objective concretes, but as though they respectively existed *per se*,—were, so to speak, independent denizens of space and time? Try. Summon such an idea before you. Only words and concrete instances answer your summons. Heedless of the protest of Nominalism, you mistook what are named abstract terms for abstract ideas. You inadvertently assumed that the terms supposed corresponding contemporary ideas. You were wrong as to the degree of correspondence and as to the simultaneity. The ideas corresponding to abstract terms symbolise the inconcrete as being involved in the concrete, and they are but rarely excited by the terms. Indeed, so sufficiently do the terms function without them, and so much does the indolence of the mind avail itself of this utility, that the production of them is commonly a reluctant, slow, and difficult operation. There are few things that interest man more than Wealth, and yet its *differentia* is so hidden that many of the keenest minds of the eighteenth and nineteenth centuries have searched for it and given up the search baffled. Even secondary kinds exhibit for the most part only a part of their essence, viz. their specific difference, concealing the part in virtue of which they belong to their respective *genera*. The species, oak, for example, does not expose the part of essence in virtue of which it belongs to the genus, tree. Indeed we have no exhaustive knowledge of any natural and important essence save that of mathematical figures.

3. The term, Subtle Discrimination, correctly denotes, though not so as to prescind, the mental event that has been incorrectly denoted by the name "abstraction." We subtly discriminate, in complete appearances, the

inchoate appearances that constitute them, or the inapparitional objects that belong to them: for example, we descriminate in the complete appearance termed "triangle," the inchoate appearances triangularity and triangular magnitude, whereby we know that the triangularity determines the equality of three angles of a triangle to two right angles irrespective of the magnitude, so that a difference of magnitude could not be reasonably supposed to have the property of excluding the equality.[1] We remember no such discrimination, but it is deducible from the concurrent knowledge (the unconscious knowledge of which it was the condition) that the magnitude does not contribute to determine the equality,—that it is determined exclusively by the triangularity. What are termed Abstract Ideas are merely immediate objects determined by Subtle Discrimination.

4. Signs frequently supplant and substitute ideal images, and they for the most part supplant and substitute ideas of the inconcrete. Before this function of signs was noticed, and while yet it was taken for granted that they could not be intelligible without concurrent ideas, when it was found that signs of the inconcrete are not, for the most part, attended by ideas of the concrete, it was inferred that they are attended by ideas void of a symbol of the concrete, ideas of so delicate a texture that they leave no trace behind them

[1] The evidence of the equilaterality of the typical triangle causes unconscious knowledge that differences of magnitude in the antitypes are impotent to exclude the equilaterality. When question obtains, why difference of magnitude should not have the property of excluding the equilaterality, we find ourselves already provided with intuitive knowledge that such difference is as impertinent, as regards the equilaterality, as difference of time or space.

such as ideal images leave. The inference invented an hypothesis as needless as it is inverisimilar. We discover the inconcrete by means of ideas which symbolise it as part of the concrete; we give it a name and then the name takes its place as immediate object of almost all discourse that refers to it. We discern, once for all, a certain *proprium* in a geometrical figure. say, the equality of the three angles of a triangle to two right angles; we give it a name and then the name exempts the mind from the cost of reproducing a symbol of the concrete circumstances of the *proprium* when we have occasion to think of it. Owing to this economy we do most of our thinking and intellectual intercommunication without the intervention of ideas. All general ideas, like that of the equality of the three angles of a triangle to two right angles, are either ideas of the concrete, or ideas of the inconcrete involved with a symbol of the concrete. Wherever we discern the general without the help of a symbol of the concrete, it is because general terms are doing duty for general ideas. There are no such things as abstract ideas. So far Nominalism is justified. But an abstract idea is one thing, and a concept another. Nominalism is true as regards its negation of abstract ideas, but not as regards its negation of concepts.

5. That we discern what are not appearances, *e.g.* the relation whereby such or such a parcel of sugar is a sample, that, in other words, we have inapparitional ideas, imparted plausibility to the theory of abstraction. But it is one thing for an idea to be inapparitional, and quite another to be abstract. The immediate object of my discernment when I am thinking of a certain parcel of sugar as being a sample of a cargo

involves an ideal symbol of a concrete, viz. the parcel, and an ideal symbol of a connected inapparitional thing, viz. the relation in virtue of which the parcel is a sample. The ideal symbol of the relation is inapparitional, but not abstract. Inapparitional ideas, or ideal symbols connected with symbols of the concrete, abound; but outside that connection there are none. When we think of inapparitional things outside that connection, we think by means of signs, not of ideas.

6. We sometimes contemplate with a lively sentiment of approval an ideal of emotive character unconnected with an image of a subject. The few whose Christianity has enamoured them of Wisdom, and who are earnestly occupied about their own moral development, frequently think of charity, patience, fortitude, generosity, and their opposites, apart from an ideal image of a subject, and with such sentiments of approval or disapprobation as are excited by living instances. Are the objects they contemplate concepts, or are they mere signs of concepts? One might allege improbability that a mere sign could make itself an object of emotion, and conclude that the objects are concepts. Cardinal Newman, in his *Grammar of Assent*, dwells on the parching influence of abstract religious ideas, and, if the objects denoted as abstract ideas be really mere signs, his remarks apply against signs,—against their inefficiency to kindle the intelligence of the heart. It is true that when the consideration of religious topics involves intricate reasoning and laborious effort of subtle discrimination, it tends to exclude emotion, so that "theologising" tends to parch the heart; but familiar general terms serving as substitutes for concepts have no such tendency. Words and

phrases, from being connected with emotions by their respective ideas, acquire a virtue whereby, without the help of the ideas, they excite the emotions. Hence the magic of a liturgy, a party cry, a proverb, and the superlative words of poets which certain emotions always suggest. There are objectless emotions.[1] Such is the emotion of solemnity excited by an organ peal, such the emotion styled by Lord Kames the sympathetic emotion of virtue. They do not inform us that they are unconnected, and we take for granted that they are connected, with ideas. Such emotions mere words have the property of awakening.

7. Ideas of "quesits" (§ lxix. 1) tend to pass for Abstract Ideas, and to bolster the doctrine of Abstraction. Such objects are not primarily discriminated in the concrete, and then exhibited apart from the concrete. The idea of Possibility cannot be supposed to have such an origin. What it symbolises is not an attribute of the concrete, and, therefore, does not admit of abstraction. The idea of the absolute necessity indicated by axioms and all guaranteed theses, considered as holding though nothing existed save space and time, is not the idea of what could be an attribute of a concrete. The idea of the moral imperative symbolises it as a thing that is independent of the contingent, a thing which the contingent may intuite but not originate; which, if God be, is no less a law to God than to His creatures[2]: of what concrete can this be supposed to be an attri-

[1] The writer once surprised in himself an objectless emotion of sarcasm.

[2] The notion that the moral imperative is the will of God in the sense that, if He should command what the moral sense apprehends as evil, what was commanded would therefore be good, is inconsistent.

bute so as to be amenable to abstraction? Clearly abstraction has nothing to do with such ideas.

8. The Moral Imperative, although a quesit, is a thing of transcendent importance. In this respect it has no rival but the animus which moves us to comply with it,—the animus, wisdom. The idea by which it is symbolised bears powerfully upon the practical life of man, and is the product and sign of what is divine or nearest to divine in him. It bears to human nature and conduct a relation analogous to that which the useful figment termed "concept" bears to the realities it symbolises,—a figment that serves as a hinge of science. We cannot too carefully enshrine, protect, and in every way make much of, a thing so holy and momentous. If we reduce it to the category of nonentity, we tend to impair its dignity and influence, and to help a demoralising argument, viz. that moral law is a mere fiction of minds of a certain order, and that, apart from minds of that order, there is no such thing as good and evil,—an argument which confounds moral law with discernment of moral law.

CXXXVI.

Philosophers have been so engrossed by the relation of the concept to judgment that they have quite overlooked its relation to memory. When we remember a custom, the immediate object of the remembrance is a concept, an idea of an event serving as type of a kind of events. One may remember the customary temper of his youth in a concept having for nucleus an ideal

image of his young self smiling or laughing, or in some other way evincing an ebullition of pleasure, the image being apprehended as sample of events that made up the greater part of his youthful waking life. Concepts of this kind may be distinguished as *mnemonical.*

CXXXVII.

The primitive source of ideas of Kinds is *a latent action of unitive likeness* on the mind. We simultaneously or successively, or in part simultaneously and in part successively, perceive and otherwise experience several individuals of a kind, and their unitive likeness latently fecundates the mind, so that, without the intervention of any consciousness whatever, an idea of the Kind comes into existence. No comparison, no discernment of general likeness or of a basis of general likeness, nothing that could be accounted a conscious selection and synthesis of essential qualities, intervenes between the consciousness constituting the experiences and the birth of the idea. The bearing of the fecundating likeness is as remote from objectivity as that of the likeness which begets recognition. The idea thus begotten is the idea of a primary kind, one that excludes a symbol of the *differentia* of the kind, and, so, testifies that the kind does not owe its existence to discernment of a basis of likeness. One of the most toilsome and least remunerative offices of Reason is study in quest of the discovery of the *differentiæ* of primary kinds, *e.g.* of Mankind, or Wealth; and yet philosophers pretend that the idea of a kind supposes discrimination of its basis of general likeness, and that the idea was somehow

composed by the mind at the suggestion of a comparison contemplative of that likeness. The likeness, they hold, abetted by difference, sheds a light upon the essence and upon the accidents of its subject, which enables the mind to distinguish between them; and the condition of the putative discrimination they named Abstraction. The equivalent of such an operation is wrought by the latent action of unitive likeness.

CXXXVIII.

Evidence is not wanting that experience of several individuals of a kind is an indispensable antecedent of the existence of the idea of the kind. In the case of twins, our experience of two antitypes of the same type does not suffice to make the type, in our view, a specific difference, and the twins a kind. If nature should regularly and abundantly produce counterparts of Prince Bismarck, what is now unique in the appearance of the Prince would convert into a specific difference. If nature produced but one or two specimens of every kind of tree, what are now the specific differences of the trees would be mere individual differences.

CXXXIX.

The writer has surprised his mind vibrating with the birth-throe of the idea of an obvious secondary kind,—not in the act originating the idea, but in the consequent motion. The clearing of a throat was

apprehended by him as a sign of a certain moral state or disposition, and as sample of a kind of physiognomical signs.[1] The sound was a pro-concept. To this succeeded a complete appearance symbolic of such a sound and typical of the kind of signs of which the sound was apprehended as sample. This appearance was a new-born concept. Like appearances passing for one and the same appearance, as though they were a single durable thing that occasionally rose into the view of discernment and then betook itself out of sight into some dark recess of the mind,—like appearances, I say, have served ever since as concepts typical of that moral state or disposition. The unconscious mental process that begot the idea of a kind begot in it a knowledge of a relation of cause and effect. The frequent simultaneity of the sounds with the natural language of the disposition, a language intelligible to primitive intuition, so affected the mind, but without the interference of consciousness, that the sound was apprehended as an effect as well as a sign of the disposition. Much that is imputed to discourse is, in like manner, elaborated outside the sphere of consciousness.

CXL.

1. I have explained (chap. vii.) that the term *general synthesis* denotes the mental act which generates a beginning of knowledge, whether conscious or unconscious, that the individuals of one kind are to those of another in the relation of subject to attribute, *e.g.* that

[1] We need a term of greater etymological latitude to denote what is now denoted by the term, physiognomy, and its cognates.

the individuals of the kind, diamonds, are, respectively to those of the kind, combustibilities, in the relation of subject to attribute. Now that we definitely know what Kind, Essence, and General Ideas, are, the explanation is a definition.

2. It is important to distinguish from general-synthesis the synthesis of symbols of qualities constituting the essences of individuals of primary kinds, a synthesis which, from its relation to the generalisations that beget ideas of those kinds, might seem to be general. To form the idea of the primary kind, gold, one must have seen two or more things composed of gold; the perception supposes a synthesis of the qualities that constitute gold, its colour, solidity, specific weight, etc., and as this synthesis is extended in the idea of the kind, gold, to all individuals of the kind, it might seem to be general. The synthesis differs from that to which I have assigned the name, general-synthesis, as not being a putting together in the relation of subject and attribute. I might show, if there were need, that it is not general. It is enough to show that, although it unites symbols of qualities, the union is not that of subject and attribute. The confusion of the two kinds of synthesis tends to confound Induction with Generalisation. For example, it tends to make room for the error, that the belief of the essentialness of whiteness to swans, which was a product of generalisation, was a product of induction. The error assumes that swans were at first apprehended as things accidentally related to whiteness, and that many instances of the connection, undiscredited by a contrary instance, begot at last the belief, that the connection is necessary and universal. It might as well be held that gold was at first distin-

guished from its yellow, and that it took an induction to discover their essential connection. But, if it take induction to discover the essential connection of gold with one of its qualities, why not its connection with all of them? only here one is at a loss for a subject which induction should endow with essential qualities. The symbol of the whiteness of the swan was at first a semi-distinct constituent of what bore on the mind as essence of the swan, and remained so until the appearance of a bird having all the qualities of the swan save the whiteness dislodged it from that relation, raising the idea of the kind, swans, into a genus, and lowering the symbol of the whiteness into a specific attribute,—the *differentia* of white-swans. Primary generalisation—that which begets ideas of primary kinds—never involves a general-synthesis.

CHAPTER XIX.

QUANTITY AND NUMBER.

CXLI.

1. We have now to look for a definition of *number*. When money collected in a public assembly is handed to the treasurer, he receives a sum of the number of which he is ignorant. To ascertain the number he must count. He apprehends the thing received as a sum and a quantity. He unconsciously knows that it is greater than two pounds, and vastly less than a million. But this vague knowledge of a plural quantity—one that consists of two or more units—is not a knowledge of a number. When by counting he definitely ascertains the quantitative relation of the sum to a pound, and to other sums consisting of pounds, he ascertains its number. If the sum consist of many units, it exhibits no recognisable trait such as is exhibited by sums under five: a few coins secretly withdrawn from the heap would not be missed. Supposing the treasurer's count to ascertain that the sum consists of a hundred pounds, what has it added to his knowledge? Merely, that the sum exceeds by one pound every sum consisting of ninety-nine pounds, is less by one pound than every sum consisting of one hundred

and one pounds, is equal to the double of every sum consisting of fifty pounds, and to the half of every sum consisting of two hundred pounds; and so on. In respect of all sums consisting of pounds and parts of pounds he does not, at the time, consciously refer to any of these relations. He makes no comparison whatever between the sums he has counted and other sums. The counting adds nothing to his conscious knowledge but knowledge of the name, One Hundred pounds; but it has begotten in him *unconscious knowledge* of all these relations, and that, by means of it and the species of counting termed arithmetic, he can ascertain a multitude of other numerical relations. It seems then that we have ideas of sums and of plural quantity that are not ideas of number.[1] Our treasurer's idea of the sum received by him is such an idea. It also appears that knowledge of numbers exceeding four or five depends, in certain cases, upon the act termed "counting,"—an act dependent upon signs either visible or audible. Beside these indications, our study in quest of a definition of Number should refer to the difference between numbers that are and numbers that are not intuitable, *i.e.* recognisable without counting, the former possessing and the latter being without a recognisable trait. It should also refer to the difference between the terms known as cardinal numbers, *e.g.* one, two, three, four, etc., and those that denote ratios, *e.g.* double, treble, quadruple, half, third, fourth. It is essential to terms of the latter kind to *de*note a "greaterness" or a "lessness," whereas cardinal numbers merely *con*note those rela-

[1] The French Academy, overlooking the fact that we are often cognisant of sums and ignorant of their number, defines number, "plusieurs unites"—implying moreover that a unit is not a number.

tions. Taking our direction from these indices, we are likely to fall upon a true definition of Number.

2. There is a species of quantity of which the *differentia* is that its individuals are discernible without reference to plurality. To name these and their opposites, I am driven to coin two words, viz. the adjectives "plurive" and "implurive," the former signifying, undiscernible without reference to plurality, the latter, discernible without reference to plurality. It is essential to sums and units *quâ* subjects of quantity to be *plurive*. All other subjects of quantity, *e.g.* pain, pleasure, heat, vividness, are *implurive*.

CXLII.

1. The genus, *sums*, comprehends an infinitude of species the individuals of each of which are equal to one another and greater or less than those of all the other species, *e.g.* the species twos, threes, fours, etc. These species and the kind Units are related to each other as degrees of a scale of which each superior degree consists of sums that respectively exceed by a unit a sum or unit of the next lower degree. These species, as constituting the degrees of a scale, may be distinguished as climactic,—as climactic "plurive" species, and the attributes by which they are differentiated as climactic plurive attributes. *A number is an individual of a climactic plurive species.* The scale of which the degrees are climactic plurive species may be termed the plurive scale.

2. A Number might be defined a subject of plurive quantity, but this definition omits the climactic or scale relation in virtue of which a subject of plurive quantity is a number. An object may exhibit the aspect of numerical plurive quantity without presenting the aspect of a number. It may be apprehended as being greater or less than another subject of plurive quantity without being apprehended as a number. To be apprehended as a number its climactic relation must be either vaguely or determinately objective. To one who is about to count, the climactic relation of a sum or unit is vaguely objective; after counting, determinately. By the way, the symbol of this relation is not such as to make the plurive scale objective, or even to make the climactic attributes of the relation distinct. What corresponds in the symbol to this attribute is abditively indistinct, and, accordingly, the notion of number as being a subject of climactic relation is a stranger to the popular mind.

CXLIII.

1. *Ratio* is undefinable. It is either an equality or a quantity of "greaterness" or "lessness," *i.e.* a quantity of which the subject is a "greaterness" or "lessness." It is denoted by such examples as double, triple, quadruple, half, third, fourth, but could not be made known by any description to one who had never intuited an object signified by one or other of those terms. There are kinds of quantities of "greaterness" and "lessness" that are not ratios, *e.g.* "greaterness" by two, as that of 11 in respect of 9, or of 102 in respect

of 100. What distinguishes ratio from this kind of quantity of greaterness is no more definable than the property that distinguishes red from blue.

2. Proportion is equality of ratios.

CXLIV.

1. The history of the genesis and development of numerical discernment is the best possible exposition of Number and of the idea of number, and, happily, we are not without data from which it is possible to deduce the history. The first numerical sign that obtained amongst men must have been preceded by an immediate object symbolic of a number, and the first object of the kind that obtains in any individual must be one symbolic of an intuitable number; for an unintuitable number is not discernible without counting, and counting depends on signs. Therefore the First epoch of numerical discernment must have been a discernment of at least two intuitable numbers. It is not difficult to imagine how the numerical aspect of a sum was first engendered in the mind of primitive man. A savage, we will suppose, had provided himself with three portions of food, of which two are abstracted during a brief absence, and, because of the balked hunger, are acutely missed. The sum of portions he expected to find, the sum purloined and the remaining unit, would be now apprehended by him in their numerical relation. If upon another occasion he dropped four flints and after considerable search recovered them, one by one, the experience would tend to put in relief the numerical

aspect of the first unit recovered and of each of the three successive sums determined by the successive additions of recovered units. By the way, was this aspect involved in a contrast of images? Did the immediate object symbolic of number in the first epoch of numerical discernment differ in that respect from the immediate objects symbolic of number in our time? For my own part I fail when I try to discern a number by means of a contrast of images. Make the experiment. Endeavour to think the number of a sum of three guineas by means of three images, one of the three guineas, one of two, and one of one. The experiment convinces that discourse about number does not proceed on images. Is it possible that this is owing to an alteration of the mental structure by the use of signs; that, whereas number was exhibited to primitive man antecedently to the use of signs in a contrast of images, we are no longer capable of discerning it in such a contrast? The sufficiency of signs as substitutes for images, and the surpassing aptitude of the system of numerical signs, considered together with the tendency of the mind to curtail its immediate objects, to make portions do duty for their wholes, and to part with unused instincts and faculties, gives some countenance to this hypothesis. On the other hand, the hypothesis that an immediate object symbolic of a number involves an inapparitional constituent, is verisimilar, and to the writer seems preferable.

2. Three epochs of numerical discernment, of which the order is dubious, follow the first; one the origination of a numerical sign, another the first denotement of a like number by the same sign, and the other the first discernment of an unintuitable number. The numerical

sign is not a condition *sine qua non* of the discovery of an unintuitable number, and, although it is probable that signs of intuitable numbers obtained in advance of discernment of the unintuitable (a probability confirmed I believe by modern observation), we are not shut in by conclusive evidence to a solution of the question. Let us, for convenience' sake, assume that the origination of a numerical sign constituted the Second epoch. The evidence for the thesis that natural language, including pantomime, was the precursor and in part the mould of artificial language, leaves little room for a contrary opinion, and it is highly probable that number was discerned before articulate sound became a part of language. It is highly probable therefore, considering how much mimicry contributes to mould human expression, that the first signs of numbers were digital imitations of intuitable numbers. The fact that the common name, Digit, is the common name of numerical signs, and that the Roman numerals are imitations of the raised fingers, the numeral V being an imitation of the outline of the open hand, and the numeral X an imitation of a display by both hands, favours this hypothesis. The prevalence of the decimal system also testifies in its favour.[1]

3. The Third epoch was the denotement of a like number by the same sign. This began the process

[1] I have not yet read the *Australian Aborigines* of Mr. James Dawson; but, in a notice of the work in *Nature*, 6th October 1881, I find that in the language of certain of the Aborigines a name compounded of the words "one" and "hand" denotes five, and a name compounded of the words, two and hand, denotes ten, and that the signs of certain numbers consist of words followed by digital gesture, the sign for twelve, for example being the word, two-hand, followed by a display of two fingers.

whereby a numerical sign was made common to the individuals of a plurive species, *e.g.* the sign, Two, to all pairs, and was thus adapted to be a general sign, *i.e.* the sign of a number viewed as type of all like numbers, *e.g.* the numerical signs in the proposition, As a two is to a four a five is to a ten. The lingual instinct that made Two a common name thereby adapted it to be a general name,—the name of a concept.[1] The concept consists of an imaginary individual of a plural species exhibiting the aspect of type of the species. It is, for the most part, substituted by its name, and the substitution has greatly assisted, if indeed it did not originate, the error of the extreme Nominalists, that discernments of the general have nothing but names for immediate objects. The promotion of numerical signs into general names was a preparation for the discernment of number, which is commonly held to be a product of abstraction,—to have for object what is termed abstract number, the *numerus numerosus* of the schoolmen.

4. The first discernment of an unintuitable number constituted the Fourth epoch of numerical development. Counting could not as yet have obtained, because it was excluded by intuition of such numerical relations as were then objective; therefore the discernment was not due to counting. There is but one other way in which it could have obtained, namely, by notice of addition of a unit to the highest intuitable number. Accordingly, the first unintuitable number discerned must have been the lowest of its kind, probably a five,

[1] A concept symbolic of a kind of perceptible things has two faces, according to one of which it seems to be an idea, and according to the other a something external to the mind and symbolised by the idea. Its name is also the name of the species it typifies.

the second a six, the third a seven, and so on upwards, notice of additions of a unit to a sum of the next lower number being the condition of each discernment. Thus were begotten ideas and signs of objects that are destitute of a recognisable trait, and no small perplexity ensued in consequence to philosophers who undertook to study and explain our knowledge of unintuitable number. Such a one looks for an idea corresponding to a sign of an unintuitable number, say a hundred, and finds none: he has the idea of a sum,—of a plural quantity—but no idea of its number; he has instead the sign of the number; he is bewildered by what seems to be conclusive evidence that the immediate objects of the greater part of his numerical discernments are mere signs to which no ideas correspond. He finds it impossible to construct a corresponding idea. How are signs of things of which we have no idea possible? He is humbled by the inconsistencies that discredit so many of our fundamental ideas to put up with this inconsistency also, and then he will have it, that all discernments of the general have nothing but general signs or names for immediate objects. But he is mistaken in supposing that there are no ideas corresponding to signs of unintuitable numbers. To the sign, hundred, for example, there corresponds the idea of a plurive quantity which counting has found and would always find to correspond to the sign. This idea he overlooked because he was looking for one symbolic of an intuitable feature like the features of the four lowest numbers, or, at least, of some equivalent of such a trait. If the sum signified consist of perceptible units, the idea of it is, as it were, a labelled image, the label being the numerical sign. What the recognisable face of an

intuitable number is to its subject, that the numerical sign is to the unintuitable number. Imagine prisoners masked by a labelled covering that hides all peculiarity of human form, and distinctly known to their keepers only by their respective labels. The immediate objects symbolic of these prisoners in the minds of the keepers are analogous with our ideas of unintuitable numbers. Both sets of ideas connect with a great deal of unconscious knowledge that is prone to convert, on the least pertinent occasion, into conscious knowledge.

5. The invention of counting is the Fifth epoch. As I remarked above, counting is necessarily posterior to the discernment of an unintuitable number, because there is no occasion for it beforehand. It is suggested by the notices of additions of units that are conditions of the discovery of unintuitable numbers. When the primitive savage saw a sum of which the number was unintuitable, a sum which he was concerned to ascertain, it would occur to him to withdraw from it a sum of the highest intuitable number, withdraw from the remainder a unit, and add it to the sum withdrawn, denoting the number of the augmented sum by its sign; withdrawing and adding in like manner another unit, and denoting the number of the augmented sum; and so on to the last unit of the remainder; the sign of the number of the sum augmented by the last unit being the sign sought. The end and reason of counting is the ascertainment of an unintuitable number.

6. The first denotement of a number by successive exhibitions of fingers constituted an important numerical epoch,—the Sixth. Whether the first discernment

of an unintuitable number was or was not abetted by signs of the intuitable numbers, it is certain that but very few of the unintuitable, and those the lowest, could be otherwise discerned. The discernment of those in excess of ten depended upon the discovery of a system of signification whereby a few signs might be made to denote a vast multitude of numbers. Now, on the supposition that numerical signification is, at first, digital, we can see how a shift, well within the scope of savage originality, might have begotten such a system. It only needed to occur to some one to denote a number in excess of ten by two successive exhibitions of fingers. The further development of numerical signification by additions to the succession of digital denotements does not deserve to be regarded as an epoch, being a mere copy of the model furnished by the first succession. Once the lingual instinct applied succession of digital exhibitions to denote number, the limitation of the digital instrument to ten indices secured the decimal system of notation; it would ever after, so long as digital expression of number should last, apply the method of successive exhibitions of all the fingers for the denotement of multiples of ten.

7. The remaining epochs may be more cursorily treated. The Seventh was the substitution of vocal for digital numerals. Numerical concepts, it is probable, began subsequently to the use of vocal numerals, *e.g.* the idea of a two as type of the kind twos: if so, the first of them constituted the Eighth epoch. The first numerical judgment other than that which results from counting, *e.g.* a two and a two are a four, constituted an important epoch. It probably

obtained as a curtailment of the process of counting. It prepared the last epoch which we are here concerned to notice, the Tenth, viz., the substitution of numerical signs for numerical ideas as the sole immediate objects of arithmetical discourse.

CXLV.

The evidence that *pantomime*, including every form of natural language, was the precursor and parent of speech, is cogent. Pantomime includes mandatory, precatory, affirmative, and negational signs, either sounds or gestures, all of which are commonly applied in the most advanced societies as adjuncts of speech, and two of which, the mandatory and precatory sounds, are, as regards command and prayer, indispensable accessories of speech.

Pantomimists show us how much is communicable, without speech, by natural language; so also the intercourse of deaf-mutes and that of people who do not speak the same tongue. Instinct sets us upon the use of natural language, and it is intuitively understood. We have no reason to suppose that it did not suffice for the intercourse of primitive man, and, as the supposition that it was the primitive language affords the explanation of the origin of speech without recourse to the supernatural, the principle of parsimony recommends it to belief. The digital signification of number, of which we have irresistible evidence, corroborates the theory that natural language is the parent of speech. This mode of denotement is still employed by savages. For instance, we learn from the *Australian*

Aborigines of Mr. Dawson that the group of tribes between Portland Bay and Cape Ottaway, denoting five by their name for one hand, ten by their name for two hands, and multiples of ten correspondingly, but not having named numbers under ten, signify these by gesture—by exhibitions of the corresponding number of fingers; "one of the most remarkable examples," remarks Mr. Tylor in *Nature* of October 6, 1881, "of the way in which numerals have been developed from counting on the fingers." Whether digital signs did or did not obtain in advance of all speech, it is extremely probable that they obtained in advance of all numerical names, and certain that they did so in advance of some of them; for it is absurd to suppose that a society able to denote all numbers by names would employ digital signs to denote any. If digital signs could coexist with numerical names, how comes it that we do not now employ them? The antecedence of digital to verbal signs of numbers proves that at least an important part of language, viz., that consisting of numerical names, is of natural origin, and it rids our inquiry of the hypothesis that the numerical scale and the verbal signs of its degrees were supernaturally imparted to man.

CXLVI.

In all languages derived from the Aryan the names of numbers consist of ten nondescriptive names, and descriptive names composed of the former. The descriptive names are determined by a method significantly analogous to that of decimal digital notation, numbers exceeding ten and under twenty being denoted by

names consisting of the name ten and the name of the excess over ten, the name twenty consisting of the names two and ten put as factors, the name thirty of the names three and ten put as factors, and so on up to a hundred. But how came it that the lingual instinct followed the method of decimal digital signification in the generation of verbal numerical signs? Why did it not begin descriptive naming with eight or nine or with eleven or twelve? What determined it to begin with ten? The answer to this interesting question is not obvious, and the end I have in view does not require me to look for it. I am led to remark by the way with reference to this question, that a theory of the genesis of words which supposes words begotten in the infancy of the race to have been intentionally invented, *i.e.*, articulately copied from a type discovered in and selected from the train of ideas by attention purposely applied in quest of a word, assumes a ripeness of faculty that experience of human nature does not warrant. Man must be already a philosopher when it is possible for him to premeditate the invention of a word.

CXLVII.

We owe to the lingual instinct not only words but also rules for making words. As regards number, we owe to it an art of name-making whereby we are enabled to fashion out of ten sounds an indefinite number of names so corresponding to the things they denote that an operation upon the words or their various signs enables us to evolve the sign of an unknown number and thereby to acquire knowledge of

the number. One of the rules of this art enables us to convert names of numbers, 1*st*, into names of what are known by the common name, ordinal number, 2*nd*, into names of units which connote the ratios of the units, and 3*rd*, into names of ratios. The rule for making the name of an ordinal number is, except as regards the numbers, one, two, and three, to affix the letters *th* to the names of the corresponding number, *e.g.*, four*th*, fif*th*, six*th*. To make the name of a unit that connotes a ratio of the unit, utter the adjective, "one," before an ordinal, *e.g.*, one fourth, one fifth. To make a name that shall denote two or more units and their respective ratios, affix *ths* to an ordinal and utter before the word so made, as adjective, the name of the number of the units, *e.g.*, three-four*ths*, four-fif*ths*. Now, names of units that connote ratios of the units consist of two constituents, one a numerical adjective, the other the term qualified by the adjective: the former is termed numerator, the latter denominator. A term composed of a numerator and a denominator serves to denote as well as connote a ratio, *e.g.*, the term, three-fourths, serves equally to denote three units by connoting their ratio to four, and to denote the ratio of that number to four.

BOOK II.—REASONING.

CHAPTER I.

JUDGMENT.

CXLVIII.

THE study of the faculty, Reason, belongs to psychology; but the study is incomplete until logic has exposed to it those offices of the faculty about which logic is conversant. The study of the faculty, eloquence, belongs to psychology; but it is incomplete until rhetoric has exposed to us all the offices of the faculty about which rhetoric is conversant. The study of the faculty, wisdom, belongs to psychology; but it is incomplete until moral philosophy has exposed to it all the relations and offices of the faculty about which moral philosophy is conversant. My subject, psychology, therefore requires me to investigate Reason in the domain of logic, and Wisdom in the domain of moral philosophy.

CXLIX.

1. Judgments are either augmentative or unaugmentative, the former being those that do and the latter those that do not augment knowledge. Unaug-

mentative judgment is not necessarily (though Kant implies the contrary) analytic and explicative. There is nothing of analysis and explication in the judgment that I exist, or that a person whose identity is in question and whom I recognise is John or James, or in any judgment merely corroborative of experience, *e.g.*, that I am conscious. The judgment connected with Columbus' first view of trans-Atlantic land, viz., that trans-Atlantic land exists, was an unaugmentative judgment: it added nothing to knowledge, being merely corroborative of the knowledge added by perception.

2. Augmentative judgment is either intuitive or inferential. The judgment, that a boundary is contained in a region, is an example of intuitive augmentative judgment. This kind includes a species that has never been adequately distinguished and never explained, viz., judgments involving discovery of unobvious essences of known kinds,—discovery of essences of primary kinds. Judgments of this species, as being discoveries of real definitions, I distinguish as *definition*, and those of the opposite species as *non-definition*. Definitive judgment and the scrutiny on which it depends constitute one of the most important and arduous of the functions of Reason. The ideas in different minds corresponding to a given general name are not always symbolic of the same kind, and the idea corresponding at one time in a given mind to a general name is not always perfectly like the idea corresponding to the name in the same mind at another time. In other words, the signification of a general name is not always the same for different persons, nor even for the same person at different times. The ideas chiefly vitiated by this source of confusion and error

are those symbolic of kinds of which the essences are not known; and the discovery of the essence eliminates the vice. When men are agreed respecting the essence connoted by a given general name, the ideas corresponding to the name in the different concurring minds become like one another, and likewise the ideas corresponding to the name at different times in the same mind: the name acquires the same signification relatively to all the concurring persons and to the same person at different times. The change is a *sine qua non* of correct predication as regards the kinds to which the rectified general ideas refer; it enables a distribution of the predicate according to the intention of the predicator without which a common understanding respecting certain questions is impossible. Such is the importance of definitive judgment. Its arduousness cannot be thoroughly known but to those by whom it has been successfully applied in the solution of long-vexed questions. Some notion of it may be inferred from the antiquity of questions which have reached a solution only in modern times, and from the length and violence of controversies that have been terminated by the conversion of indefinite into definite ideas. Over two thousand years ago philosophers were in quest of the *differentia* of the kind, Man, some of them contenting themselves with such a *pis aller* as the definition, A two-legged animal without feathers: later philosophy took refuge in the definition, Rational animal, overlooking the irrationality of idiots. If the author's definition be true and terminate a secular quest, it is worth while to say of it that it was not achieved without long, fatiguing, and often baffled labour. The failure of the political economist to achieve a true definition of Value is a notable instance of the difficul-

ties which the faculty of definitive judgment has to encounter. The controversy respecting the relation of knowledge to experience demanded an exhaustive study of experience to ascertain what the disputants should allow to be its *differentia*, but, antecedently to the present work, there is no sign of such a study, and it is not improbable that the disputants preferred to risk the defectibility of indefinite ideas rather than incur the long postponement incident to such a study.

3. The definitions of geometry are good examples of the products of definitive judgment. Points and lines were given by experience as perceptible things, and, under the scrutiny of Reason, they resolved into imperceptible things manifested by the perceptible,—points into dimensionless positions, lines into lengths without breadth. The definitions were achieved by mere scrutiny, without evidence, without inference. The scrutiny pierced the confusion which palmed off things of two dimensions for lengths without breadth, and *minima visibilia* of two or three dimensions for points.

4. Definitive judgment, and the scrutiny by which it is for the most part if not necessarily preceded, constitute a species of reasoning that has been overlooked by Logicians, who restrict the name Reasoning to inference.

5. Judgment is either general or non-general. It is either synthetic or disjunctive, the former when it affirms, the latter when it denies, that one of the terms of its thesis is to the other in the relation of subject.

CL.

1. *Inference* consists of a discernment of evidence, and a consequent conclusion. By some the term, inference, is understood to be synonymous with the term, conclusion; but authority seems to sanction the other signification. The Logicians, in holding syllogism to be the form of inference, endorsed the latter. Let the first of the two constituents be known as inferential antecedent, and the second as inferential consequent.

2. Inference is divisible into Deduction and Induction. Deduction is *inference from evidence that elucidates a complete seeming of necessity*, and Induction is *non-deductive inference*. These definitions are not likely to pass unchallenged. Although the highest philosophic authority from Aristotle downward opposes Induction to Deduction, modern thought confines the name to inferences from the particular to the general, and to certain mental acts which it mistakes for inferences: it does not rank inferences respecting particulars, *e.g.* the juryman's verdict that the defendant is guilty, as inductions. Then, Logic has so intimately connected the idea of deduction with inference from the general, that a definition of deduction which does not expressly exhibit this relation has a questionable air: yet reference to the general is a mere accident of deduction,—an accident so unimportant that the French are now teaching mathematics without the axioms, and the omission, I understand, is sanctioned by the Academy.

3. Deduction is either general or non-general, the former when the deduced thesis is general, otherwise the latter. The evidence on which general deduction depends is proper to mediate concepts. This contributed to beget and maintain the notion, that perfectly guaranteed deduction derives nothing from experience.

4. Deduction differs from induction in the respect that its evidence does not consist in, or derive from, an experience other than that which begets the ideas of the things to which it refers, whereas inductive evidence either consists in or derives from such experience. Deductive evidence is proper to—is implicit in—ideas formed in advance of the operation of the evidence, and is valid for all persons who possess those ideas, whereas inductive evidence is valid only for those who undergo, or have confidence in the testimony of those who undergo, experience over and above what begets the ideas of the things to which the evidence refers. From this point of view also we descry an explanation of the opinion, that deduction is judgment *à priori:* the experience on which it depends was overlooked, and that which it excludes seemed to comprise all experience.

5. Deduction is divisible into that which is wholly, and that which is partially, guaranteed. When the evidence shows that, *if* such or such an uncertain thesis be true, the thesis in question *must* be true, the deduction is only partially guaranteed; when the evidence hinges on an axiom, the deduction is wholly guaranteed.

6. It is essential to Deduction to elucidate a seem-

ing of inconsistency of the opposite,—inconsistency of the thesis opposed to that one whose truth is deduced. Inference from evidence that merely elucidates *absurdity* of the opposite is not deduction. Euclid deviates from his ostensible method when he has recourse to this kind of evidence,—a mode of proof known as Indirect demonstration. The evidence does not hinge upon an axiom. The extreme absurdity of the opposites elucidated by his indirect demonstration, although it does not satisfy Reason like demonstration, causes what is almost an equivalent of a complete seeming of necessity. It is almost demonstrative. But it must be acknowledged to its discredit that the criterion of absurdity graduates into repugnancy determined by prejudice and conservative of error.

7. Inference is divisible into—1st, inference of which the knowledge, antecedently to the inference, is so nearly within the knowledge of the person inferring that, to bring forth the conclusion, he only needs to be reminded in connection with the inferential question; and 2nd, inference of which a part of the evidence is, antecedently to the inference, unknown to the person inferring. The following are examples of inference of the first of these two kinds. Experience has convinced a man that delicacy of conscience excludes success in politics, and nevertheless he apprehends A——, a person known to him to be a successful politician, as a man of delicate conscience: being reminded of the general judgment and also that A—— is a successful politician, he at once concludes that he was mistaken in the character of A——. A materialist who believes in his own personal identity and in that of all men from birth to death, and knows that

the supposed durability is not of the body, the body being a mere series of organic aggregates, on being reminded of his beliefs in connection with question of their truth, discerns their inconsistency, and, infers the existence of an immaterial subject of the identity, —a soul. Every geometrical inference is an example of inference of the second kind. Inference of the first kind, as being supplementary to mental operations which, but for mental indolence, would have resulted in the knowledge they originate, may be distinguished as supplementary; and that of the second kind as non-supplementary. Supplementary inference evinces mental defect: in minds of the highest order the rectitude and completeness of the mental operations which, in lower minds, it is its function to supplement, exclude occasion for its interference. When, in such a mind, a general induction obtains, all individuals of the kind to which the induction refers are apprehended in conformity with the induction. If, for example, the induction be that success in politics is incompatible with delicacy of conscience, no one known to that mind as a successful politician is ever apprehended by it as a person of irreproachable morality. In such a mind there is no room for the inconsistency of the materialist who believes in his own temporal identity, and that his body is a mere series. The room for inconsistency which the great bulk of human minds afford is a *sine qua non* of supplementary inference.

CLI.

Evidence may exhibit to those whom it fails to convince an air of sufficiency even for demonstration, —a seeming of what I shall make free to term *proof-sufficiency.* Of this most thoughtful men have had experience. It is noticed by Cardinal Newman in his *Grammar of Assent.*[1] "And as assent," he remarks, "sometimes dies out without tangible reasons sufficient to account for its failure, so sometimes, in spite of strong and convincing arguments, it is never given. . . . I have already alluded to the influence of moral motives in hindering assent to conclusions which are logically unimpeachable. . . . Argument is not always able to command our assent though it be demonstrative." Unconvincing seeming proof-sufficiency sometimes gives occasion for an intentional act that bears a certain resemblance to a judgment,—an *arbitrium.*

CLII.

1. A thesis which supposes the truth of another thesis may be said to *imply* the other. Implication, thus understood, is either recondite or non-recondite. The definitions of geometry imply its theorems, but so as to hide them: they are examples of recondite implication. The thesis that a body is in a place different from that which it previously occupied implies the thesis that the body has moved, but not so as to hide it. This is an example of non-recondite implication.

[1] *Grammar of Assent,* p. 161.

[illegible]

[illegible]

[illegible]

[illegible] *Elements of Logic*, Book I. § 4.

have been known, but not the whole. Whately's error was probably in part due to one arising from the etymological meaning of the term, "premiss." The priority which the term connotes tends to pass for priority in respect of the inference, whereas it is merely priority in respect of the conclusion. This error I shall have occasion to expose when I treat of Syllogism (§ clxi.) I shall show that what in non-supplementary inference corresponds to the minor premiss is itself a conclusion from a part of the evidence involved in the inference.

CHAPTER II.

INDUCTION.

CLIII.

1. THE division of inference into deduction and induction implies, as I have already remarked, that induction is non-general as well as general. A verdict, or the judgment that rain is imminent, is an example of non-general induction. Mental habit has so exclusively connected the idea of induction with general theses that some shyness of the novelty, Non-general induction, is to be looked for; but this will not long resist the great convenience of the classification which assigns the name induction to non-deductive inference, completing the familiar opposition of Deduction and Induction.

2. Bakewell's induction, that all cattle of a certain make tend to fatten rapidly, is an example of general induction. Every general induction supposes the possibility of a multitude of non-general inductions from the evidence on which the general induction depends; *e.g.*, the general induction, that all men are mortal, supposes the possibility of a multitude of such particular inductions as, John is mortal, James is mortal, I my-

self am mortal,—all, both general and particular, from the same evidence. One tends at first sight to take for granted that the particular inductions are dependent on and presuppose the general one. This is not true. They presuppose the ordinary law of belief on which the general induction depends, but not the general judgment. The first savage who inquired about man's liability to death not caused by overt violence might have been occupied with the question, not whether all men be mortal, but, whether he himself be mortal, and, viewing the many deaths resulting from disease which experience and report had made known to him as evidence, also that the life of no living man had measured that of many generations of men, he might, without reference to the mortality of all men, infer that he himself is mortal. The law under which inductive belief obtains has no need to bring the general into view in order to determine a particular belief. The induction, I am mortal, as depending on the evidence from which we infer the mortality of all men, is so suggestive of the general inference, that it disposes one to believe that it is a corollary of the general inference; but not so the great bulk of particular inductions. When, from the indication of the clock, a man infers the imminence of some customary event, or, from the testimony the juryman infers the guilt of the accused, the induction neither owes nor seems to owe anything to reference to the general.

CLIV.

1. Three kinds of mental event not easily distinguishable from inference have been confounded with it.

If the first diamond seen by a child were, when seen, in a state of combustion, the perception would cause a proximate thesic affection relative to the thesis, All diamonds are combustible. The affection could not be complete, could not be knowledge, the child being without the idea of the kind, diamonds. But it passes for knowledge of the general truth, and the putative knowledge is supposed to originate in inference; as being inference from experience of instance it passes for induction. A person acquainted with the kind, diamonds, but without a prejudice against their combustibility, sees a diamond burn, and the perception begets in him an unconscious knowledge that all diamonds are combustible. The occasion provokes no question of the relation of combustibility to all diamonds. The third kind was instanced in the discovery of the combustibility of diamonds, — an inference from the combustion of a single diamond. The second and third kinds differ only in the respect, that an individual of the former originates unconsciously and out of connection with question, whereas one of the latter originates consciously, under question, in view of evidence, and involves non-significant assertion. It was inevitable that the latter knowledge should, antecedently to the discovery of unconscious knowledge, be ascribed to inference, and, as being inference from experience of instance, to induction. An unconscious beginning of knowledge caused by experience of instance is not induction; and a proximate thesic affection so caused is not induction. As I have already explained when treating of Experience (chap. xiv. Bk. I.), a thesis which experience has made known without the intervention of question—without that of the judging faculty—is a datum.

2. Data that obtain unconsciously may be distinguished as non-judicial. They are either general or non-general. The non-general are either individual or unique. The thesis, implicit in a visual perception of a tree, The object of my vision is a tree, is an example of non-judicial data that are non-general and individual. The thesis, All unsupported bodies fall, is an example of general non-judicial data. The thesis, Nature operates uniformly, exemplifies unique non-judicial data. Non-judicial data are either guaranteed or unguaranteed: the former are exemplified in the datum, Things equal to the same, etc., the latter in the datum, Nature operates uniformly.

3. Guaranteed data are the only ones that have hitherto occupied attention, and therefore a certain distrust of the novelty, Unguaranteed data, is to be looked for; but it cannot survive a little scrutiny. To allow them to be data, is to allow that every experience involves a datum, and to imply that all unguaranteed general data are pure products of experience, —pure in the sense that they are not the joint offspring of experience and judgment.

4. General unguaranteed non-judicial data comprehend a species which, as having the air of being inference, may be termed *quasi-inferential* data. All general syntheses that obtain without question, *e.g.*, that food relieves hunger and water thirst, the child's synthesis of combustibility with coal or wood, the synthesis of falling with unsupported-bodies, determine quasi-inferential data. The confusion of these data with the products of inference—of the latent mental processes which engender the data with the conscious

discourse that constitutes inference—has greatly retarded the evolution of philosophy.

CLV.

1. General induction is divisible into two kinds, one of which may be appropriately characterised as *accidental*, and the other as *non-accidental*. General induction that originates in knowledge which might obtain without the intervention of judgment—might obtain as knowledge of an empirical datum—is accidental; all other induction is non-accidental. The physicist's induction from the single instance of diamond combustibility is an example of accidental induction, that of Bakewell of non-accidental induction.

2. Non-accidental induction is separated from the opposite species by a difference so great that it tends to discredit the classification which makes them congeners. The difference hinges on one that determines two opposed kinds of series. A series is a succession in time or space, *e.g.*, a succession of days, a colonnade. A series of which the units resemble each other in a unitive degree that does not hide the plurality, is regular; one of which the units are not unitively like each other or of which the plurality is hidden, is irregular. Now, when the units of a non-factitious regular series exceed a certain number, say five or six, it is impossible to regard them as fortuitous. A law of belief obliges us to impute them as effects, either to volition or a necessity in nature. A non-factitious regular series consisting of as many units as bring it under the operation of this law, may be distinguished

as *considerable,* and one of the opposite kind as *inconsiderable.* Substituting the word "natural" for non-factitious, we get the following definition:—*A considerable, natural, regular, series is one that excludes presumption of fortuitousness. A non-accidental general induction is one that has for evidence a considerable, natural, regular, series.* It is obvious that the knowledge it involves could not originate unconsciously, apart from question or apart from a non-significant assertion. Accidental general induction obtains under a law that has nothing to do with non-accidental induction,—the law of "*like appearance, like inherence.*"

CLVI.

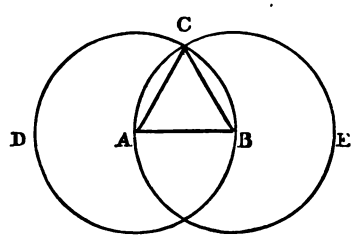
The property of excluding a presumption of fortuitousness is not confined to considerable natural serial regularity: it belongs also to another species of order, viz., orderly concurrence of aptitudes,—which insists with axiomatic force not only that the concurrence is not fortuitous, but moreover that its cause is intelligent and first cause. Order seems to be comprised by three species, viz., Regularity, Concurrence of Aptitudes, and Beauty, and the property in question seems to be confined to the two former. It does not seem to attach to mere beauty disconnected from regularity and concurrence of aptitudes. The power of regularity to suggest and insist that its subject is not fortuitous—that it is the effect of a cosmic cause—was first instanced to the writer by the impression made upon him by a cloud of which the symmetry consisted in a regularity.

CLVII.

Causes of unguaranteed beliefs have been stigmatised as *blind*. The epithet seems felicitous as serving to anchor in intimate knowledge the reason of scepticism. Theses that cause guaranteed certitude exhibit to scrutiny an *intelligible efficiency*, whereas those of the opposite species avow to scrutiny that their efficiency is unintelligible. The efficiency of a latent bearing of likeness on the mind whereby it causes an identification, *e.g.*, of an acquaintance, is no more intelligible than the efficiency of friction which causes electricity. When the bearing causes a true identification it does so accidentally. If the acquaintance were a twin the identification might be false. All unguaranteed data, *e.g.*, that of the prior and subsequent existence of the object of perception; that the Universe is a durable thing, not a mere series of things each of which exists but for an instant; that the future fundamentally resembles the past, implying the uniformity of the action of Nature; that there are realities other than the Ego; are products of blind causes of belief. Inductions are effects of such causes. The gulf traversed by the inductive leap is one which the inferred thesis does not intelligibly span—does not explain. Science, when it bursts the shell of dogmatism and carries none of the fragments on its back, has to live by faith—faith in a thing which, according to experience, has been for the most part blundering along the line of progress.

CLVIII.

1. The difference between deduction and induction is put in strong relief by two modes of proof of the equilaterality of a triangle constructed as prescribed by Euclid, one mode consisting of demonstrative, the other of undemonstrative, evidence. On any straight line (let it be the line A B) construct a triangle as follows;—applying one point of the compasses at the point



A, at the distance of the point B describe a circle B C D, and, applying a point of the compass at the point B, at the distance A describe another circle A C E; from one of the points of intersection of the two circles draw two lines, one to A the other to B. The triangle A B C thus formed can be shown by two kinds of evidence, one demonstrative, the other undemonstrative, one compelling a deduction, the other an induction, to be equilateral. The demonstrative evidence consists of two things essential to a figure so constructed, viz. that two of the sides, A B, A C, are radii of the same circle, and that one of these, A B, and the third side, B C, are radii of the same circle. These essentials suppose the mutual equality on the one hand of A B, A C, and, on the other, of B A, B C, and this supposes the

equality of the sides, A C, B C to the same, viz. the side A B, and therefore their mutual equality. The evidence shows first, that the three sides *are* equal, second, that they could not but be equal, third, that no triangle so constructed could have its sides unequal. A complete seeming of necessity elucidated by the evidence makes the evidence demonstrative and the inference *deduction.* The evidence consists of what is essential to the subject of the demonstrative thesis. The inference is explicative. The undemonstrative evidence consists of compass measurement applied to the triangles contained in several diagrams constructed as prescribed. The several instances of equilaterality undiscredited by a contrary instance compel belief that the method of construction *somehow* necessitates equilaterality of the triangle. The evidence elucidates not a complete but an incomplete seeming of necessity; it is undemonstrative, inexplicative; as regards the subject of the thesis to be proved it is accidental; and the inference it causes is *inductive.*

2. Our geometrical example illustrates more than the difference between Deduction and Induction,—more which it concerns us to make as plain as possible. It is obvious that the diagram may be employed to prove demonstratively or undemonstratively either a particular or a general thesis, either that the triangle on the blackboard is equilateral, or that all triangles constructed according to the same method are equilateral. In the one case the diagram is, and in the other is not, used as a type or concept. The particular thesis might be proved first, and then, by merely promoting the diagram into a type, the truth of the general thesis would be manifest; or, by presenting the diagram

from the beginning as a type, the general inference would obtain at once. Mr. J. S. Mill held that the first of these two modes of proof is the only possible one,[1] and certain geometrical treatises employ a language which fails to exhibit the diagram as type, and nevertheless pretends to elicit a general inference.

3. Another thesis on which the example throws a strong light is that Deduction does not depend on objectivity of the general. To assent to what is proved by the compass measurement needs no reference to the thesis, All things equal to the same are equal to one another; nor does the demonstrative evidence of the same truth; nor does that of the equality of the sides, A C, B C, to the same, and of their equality to one another, require such a reference.

4. The example instances the truth of the thesis that there are Inapparitional Objects. There is nothing apparitional in the diagram but what is visible; but its typical aspect, when it is employed to prove the general thesis, is not visible,—is not apparitional. The symbols of equality involved in the demonstration are inapparitional objects; the symbol of method of construction is inapparitional. The immediate object corresponding to the universal *ad libitum* connoted by such indefinite terms as "any straight line" in the prescription, "on any straight line construct," involves an inapparitional constituent. The constituent signified by the adjective, "any," is inapparitional. The *ad libitum*, by the way, is a *sine quâ non* of the universality of the conclusion, as serving to exclude the supposition that differences of dimension, place, and

[1] *Logic*, Bk. II. chap. v.

time, could affect the predicated relation. This bearing is overlooked by writers of Geometry who, by substituting, in certain connections, the definite for the indefinite article, shape the demonstration as though it were at first to prove only respecting the given diagram; and that they are in error supposes Mr. Mill to have erred in the pretension, that, to reach the general, demonstration has need of two efforts.

CLIX.

Arithmetic has been ranked as an exact science, as though, like geometry, it were exclusively founded on axioms and definition and owed nothing to induction. It is mainly an art for applying technical substitutes for counting, wherein we avail ourselves of a skill which practice and redintegration impart to the vocal organs, *a skill that is a substitute for knowledge, e.g.* the vocal skill which on repeating the sounds "twice nine" suggests the sound "eighteen." It proceeds partly on axioms, and partly on data determined either by generalisations from intuition, *e.g.* a two and a two are a four, two twos are a four, or by generalisations based on the results of counting, *e.g.* a six and a six are a twelve, two nines are an eighteen. As regards the rule of three, it rests on the axiom, *As any number is to another a third is to a fourth.* In so far as Arithmetic proceeds on this axiom it is a reasoning process: the means it applies for the discovery of the fourth numerical sign are not reasoning processes, but technical substitutes for counting. We find by counting, and so by experience, how many nines are

contained in an eighty-one, that an eighty-one divided into parcels of nine (divided by a nine) contains nine such parcels, that nine veiled sums (§ liv.) each consisting of nine units consists of eighty-one units, that a nine withdrawn from an eighty-one leaves a seventy-two: On such unguaranteed data are partly based the science and art of Arithmetic, and, in so far as Mathematics is based upon number, the science of Mathematics. Yet Kant will have it that Arithmetic is exclusively the product of synthetic judgment *à priori;* —that the proposition, $7+5=12$, is such a judgment. That it was possible for Kant to build on the error which our elaborate study of number has exposed evinces the density of the confusion that enveloped the idea of number.[1] *Arithmetical conclusions are inductions,* the evidence being the operation on signs which gives the numerical sign sought. Errors of calculation are not wanting to show that the knowledge resulting from the operation is not guaranteed. The rule of three is not, like Euclid's rule for making an equilateral triangle, guaranteed by inconsistency of the opposite. The thesis, that Euclid's rule is not indefectibly apt, is inconsistent; not so the thesis, that the rule of three is not indefectibly apt. The latter rule has the utmost guarantee of induction, but its aptness is neither self-evident nor demonstrative. In so far as scientific judgments are results of applications of the rule, they are not guaranteed by inconsistency of the opposite.

[1] *Critique of Pure Reason,* Section v.

CHAPTER III.

SYLLOGISM.

CLX.

1. As a needful preliminary to an exposition of the relation of syllogism to inference let us revise our notions of Law, imperative and natural law and laws of belief, and acquaint ourselves with a new aspect of axioms in which they figure as exponents of laws of belief. The primary meaning of the term, law, is command, backed by authority or penal power, to act on occasions of a certain kind according to a pattern put by the command. The term has a secondary meaning which is metaphorical, denoting a pretended command which a secondary cause tends to obey by copying in its successive effects a pattern put by the command. Let what the term, according to its primary meaning, denotes, be named imperative law. What it denotes according to its secondary meaning is known by the name, law of nature. It is essential to law, whether imperative or natural, to refer to conformity to a pattern on successive occasions of a certain kind. A command to perform a single act or several acts on a single occasion is not a law. If a secondary cause necessarily incapable of more than

one effect were possible, its action, as not being related to several successive occasions of conformity to a pattern, would not be according to a law. The tide, the succession of day and night, that of the seasons, the regular recurrences of the positions of the heavenly bodies, systole and diastole, inhalation and expiration, the regular recurrences of appetite, are examples of events—of regular series of events—that manifest natural law. All secondary causes do not operate according to law. Unique effects resulting from combinations of secondary causes, *e.g.* the lighting of a flake of snow on such or such a part of the earth's surface, abound. The combination is a secondary cause that does not act according to a law. Such effects or events are by the vulgar imputed to chance. An eccentric sum of events, *e.g.* a given eruption of Vesuvius, the birth of Cæsar, and the discovery of gravitation, may be regarded as a single event, and the causes of these events as a single secondary cause. The event is a unique and its secondary cause one that does not operate according to a law. Let causes that operate according to law be distinguished as regular and those that do not as irregular. I may observe in passing that the discovery of irregular secondary causes abolished all that knowledge of natural law had left of the putative domain of chance. Natural laws comprehend the species, *laws of belief.*

2. Certain theses bear to others a relation analogous to that of genus to species, *e.g.* the thesis, things equal to the same are equal to one another, to the thesis, lines equal to the same are equal to one another, circles equal to the same are equal to one another, the lines A B C D equal to the line E F are equal to one

another. Let a Kind of theses comprising all so related be accounted a family of theses, and let beliefs corresponding to a family of theses be accounted a family of beliefs.

3. *The most general thesis of a family of theses is an exponent of the corresponding law of belief, e.g.* the thesis, things equal to the same are equal to one another, is an exponent of the corresponding law of belief. Every law of belief has two exponents, one a proposition that is a *dictum de omni*, the other a proposition that is a *dictum de nullo, e.g.* the proposition, things equal to the same are equal to one another, and the proposition, no things equal to the same are unequal to one another. The *dictum de omni* may be termed the obverse and the *dictum de nullo* the reverse exponent. It is obvious that an exponent of a law of belief may serve as major premiss.

4. Laws of belief manifested by beliefs common to all men or to the bulk of men, *e.g.* beliefs in the axioms of mathematics, may be distinguished as common,—all others as uncommon. Uncommon laws of belief are divisible into laws of eccentric belief and laws of morbid belief. The belief that time is finite, held by many of the ablest minds, is an example of laws of eccentric belief, and beliefs that evince insanity exemplify laws of morbid belief.

5. *The exponents of certain laws of belief are axioms.* Such exponents and laws may be distinguished as guaranteed, and all others as unguaranteed.

CLXI.

1. Experience acquaints us with no wholly guaranteed deduction that does not depend upon a guaranteed law of belief. Effort to imagine an instance of such a species of deduction is abortive; but inconsistency does not discredit the idea of such a species. Therefore the dependence, although attested by the strongest inductive evidence, is not guaranteed. If it were; if the thesis, Deduction depends upon a guaranteed law of belief, were an axiom or were demonstrable, then, the dependence of guaranteed deduction on what syllogism expresses would be demonstrable. The following would be a demonstration of the dependence:—*A guaranteed deduction supposes a triad of beliefs, viz.—1st, belief that the exponent of the guaranteed law on which the deduction depends is true; 2d, belief that the first member of the conclusion (hitherto known as the Subject) is an individual of a kind constituting when the exponent is obverse and connotatively indicating*[1] *when the exponent is reverse the first member of the exponent; 3d, belief either that the first member of the conclusion has such an attribute as the exponent ascribes to all individuals of its kind or has not such an attribute as the exponent denies to every individual of its kind: a syllogism is the expression of these three beliefs, the major premiss of the belief expressed by the exponent, the minor of the second belief, and the conclusion of the*

[1] In the axiom, No limit excludes a beyond, the kind Limits connotatively indicates by community of name the first number of the proposition, making it known as being an individual of the kind Limits.

third. But although syllogism be necessarily connected with, it is not ordinarily the form of, wholly guaranteed deduction. On the contrary, the relation is so recondite that it needed the genius of Aristotle to bring it to light, and this, as we see, he did only partially, so that it was possible for Locke to deny the utility of the syllogism as an instrument of Reason. To infer the equality of two lengths of cloth which have been applied to, and found coincident with, a yard-stick, it is not necessary to refer to the axiom, things equal to the same are equal to one another. It is precious to the scientific mind to know that its reasonings are founded on, and guaranteed by, axioms; but reference to these in the very act of deduction, if it were possible, would not in the least degree contribute to the production of the conclusion. The supposition that syllogism pretends to be the form of deduction tends to ruin its credit.

2. The evidence which causes the conclusion of a supplementary inference consists of two theses which bear to each other the relation of major and minor premiss. Conscious knowledge of the truth of these theses supposes knowledge of the truth of the thesis constituting the conclusion, and therefore excludes possibility of inference in respect of that thesis: it is only when the knowledge is unconscious and slow that it affords room for the discovery essential to inference. A reminder couples the two theses in the view of conscious knowledge, and so makes them evidence in respect of the third. But as regards non-supplementary inference nothing in syllogism represents, or in any way corresponds to, the evidence. The office of the evidence is to elucidate the relation of what is denoted

by the middle term as individual to its kind, *e.g.* that two pairs of the sides of a triangle constructed as prescribed by Euclid belong to the kind, radii of the same circle, and that two of the sides belong to the kind, things equal to the same. (See diagram annexed to § clviii. 1.) The consideration, that, as regards non-supplementary inference, syllogism includes no symbol of evidence, and that the office of evidence is to intervene between the major and the minor premiss, showing that the first member of the conclusion is an individual of the kind constituting or connotatively indicating the first member of the major premiss, is of capital importance. What seemed to be the futility of syllogism disappears when we consider that it is merely part of an instrument of which evidence is the complement—that what, in relation to non-supplementary inference, is termed minor premiss, is really a conclusion, and that the parts of syllogism would be more fitly named if named

The premiss.
The minor conclusion.
The major conclusion.

3. We have conclusive evidence for the induction that all deduction depends upon beliefs expressible by syllogism; but the triad of beliefs on which a partially guaranteed deduction depends does not include an axiom. Does not induction as well as deduction depend on beliefs expressible by syllogism? No: the laws of belief on which induction depends have not a tincture of truth-likeness. The causes of belief which they regulate must have operated and begotten experience of their own efficiency in order to render the laws credible, and the inductions that estab-

lish the credit of the laws cannot be supposed to depend upon that credit. Take for example the law of non-accidental induction, the exponent of which is here for the first time correctly formulated. *The like of any one of the subjects in a considerable natural regular series wherein the units are instances of a relation of subject and attribute, is subject of an attribute of the kind instanced.*[1] Now this exponent unaccredited by experience of the power of the causes of belief which the law it expresses regulates, has not a tincture of truth-likeness. It takes a non-accidental induction to ground it in belief. The evidence on which the needful induction depends consists of a considerable natural regular series of instances of non-accidental induction experienced by the person inferring. Without this evidence it would be impossible to assent to the exponent. But the induction that grounds the exponent in belief antecedes the credibility of the law and therefore owes nothing to belief in the truth of the exponent of the law. Its conclusion, being also the exponent of the law under which it obtains, admits of no more general proposition bearing to it the relation which a major premiss bears to a corresponding conclusion, nor does it admit of one bearing to it the relation which a minor premiss bears to a corresponding conclusion.

4. The error that syllogism is the form of deduction begot the error that deduction is inference from the general. It begot the erroneous notion that, in deduc-

[1] According to Archbishop Whately, the following proposition is the major premiss of all induction—"What belongs to the individual or individuals we have examined belongs (certainly or probably as the case may be) to the whole of the class under which they come." —*Elements of Logic*, Book iv. chap. i. § 1.

tion, the subject adverts to the connected major premiss, and that the latter contributes, by a bearing of which the subject is conscious, to cause the conclusion. So little has discernment of premisses to do with the majority of deductions that it taxes the most expert logicians to translate their deductions into syllogisms.

5. The end of Logic *quâ* art is to fasten the stigma of contradiction on detected inconsistency. It is not an art for the detection of inconsistency. The end is as disproportioned to the means as the killing of a fly by a park of artillery. But the psychological knowledge evolved by the invention of the art amply compensates the industry bestowed upon it. Psychology is the offspring of Logic.

BOOK III.

DEPENDENCE OF PERSONALITY ON SELF-DENIAL.

CHAPTER I.

SCIENCE.

CLXII.

1. WHAT chiefly connects this chapter with the remainder of the essay is its exhibition of the fact that a Science is an unconscious knowledge.

2. A science is a knowledge. It is a knowledge either of a system of theses, *e.g.* the theorems of geometry, or of a system of practical rules, *e.g.* the rules of painting. A knowledge of a single thesis or of a single practical rule is not a science. A system of theses supposes the theses to be related to each other as parts of an obvious whole, and a system of rules supposes the rules to be similarly related. The thesis to which a science refers must refer to the necessary, to either absolute or contingent necessity. In so far as geometry refers to the *propria* of figures that are parts of space, its theses refer to absolute necessity, to absolutely necessary relations; in so far as it refers to material figures they refer to the contingently necessary. All the sciences conversant about Matter, *e.g.* chemistry, physiology, geology, refer to the contingently necessary. The system of theses to which a science refers must be of a nature to

be of public importance. What geometry demonstrates generally of the antitypes of its diagrams might be demonstrated of diagrams considered without reference to their kinds. The system of theses so demonstrated, although agreeing in all other respects to systems to which science refers, yet as not being of a nature to be of public importance, is not one competent to determine a science. It is conceivable that one might study and acquire a knowledge of the anatomy of an individual without reference to that of its kind. The knowledge would not be a science because the system of theses to which it would refer would not be of a nature to be of public importance. *A science is necessarily an unconscious knowledge;* for it is impossible to be simultaneously conscious of all the theses to which a science refers, and a discernment of the truth of a single thesis, although it be scientific, is not a science. A knowledge of a system of practical rules determined by a law of nature and therefore referent to the necessary is a science, *e.g.* a knowledge of ethics, of rhetoric, of arithmetic. Dependence on evidence other than the belief of others is also an attribute of science. One might commit to memory the propositions of geometry, and infer their truth from the belief of others: such a one would have knowledge respecting geometry, and inferred knowledge, but the knowledge would not be scientific. Accordingly, a science is *a knowledge inferred from evidence other than the belief of others.* But what differentiates science from philosophy? At first the significations of the terms Philosophy and Science made them all but synonyms. The term Philosophy never applied to the practical sciences, *e.g.* arithmetic, but until lately every theoretic science was accounted a philosophy. Within the last forty years the development of the physical sciences

has brought to bear on the mind an undiscriminated *differentia* of Science which divorces it from its old extensive coincidence with Philosophy. All men of science will be sensible of this when it is proposed to them that philosophy is the "mother-lye" of science. This metaphorical definition so agrees with the kinds, philosophy and science, as they are indefinitely apprehended in our day, that every cultivated man must feel it to be pregnant with a true literal definition. And so it is. When speculation achieves a knowledge of a system of explanatory[1] general theses short of being satisfactory to common sense its product is a philosophy, and when it achieves a knowledge of a system of explanatory general theses or a system of practical rules satisfactory to common sense its product is a science. Philosophy is the pioneer, the matrix, and science the discovery or offspring approved by common sense. Common sense does not always demur to explanation that does not satisfy it. Until the splendid results of modern physical research began to make common sense impatient of the bewilderments of metaphysics common sense was civil and even deferential to that putative science. Now, under the form of Positivism, it treats metaphysics as a sham and a nuisance. In respect of philosophy it has become haughty and unfilial. But after all it is a tractable spirit, and will, no doubt, recover modesty, piety, and patience. A Science then is *a knowledge inferred from evidence other than the belief of others, of a system of theses or practical rules referent to the necessary, a system that tends to be of public importance and is satisfactory to common sense.*

[1] An explanation is a knowledge that seems to the subject to improve another knowledge.

3. The unconsciousness essential to a science is not expressly enunciated because it is implied by the definition. To affirm of a science that it is a knowledge of a system of theses is to imply that it is unconscious. Besides, to characterise a knowledge of a system of theses as being unconscious would be to imply the possibility of conscious knowledge of such a system. Note in this connection that whereas discernment of the truth of a thesis to which a science refers is scientific, a discernment that has a science for object is not a scientific discernment. When one is thinking of mathematics he is not thinking mathematically—scientifically; it is important to notice this, because, when the mind is engaged in scientific discourse, it unconsciously knows that it is so engaged; and, as this knowledge easily converts into conscious knowledge which involves discernment of a science and makes plausible pretence to have measured the whole of the discourse to which it refers, it might be held that we have in view the whole of a science when we are considering any part of it.

4*a*. When the science of geometry first obtained it existed only in the mind of the discoverer. Yet it is repugnant to the common notion of science to consider it as a thing existing only in a single mind. We commonly think of it, not as a sum of attributes, not as a sum of knowledges respectively inherent in scientific men, but, as it is symbolised by the abditive concept, as a vague concrete inhabiting scientific men. The fiction is not altogether devoid of utility: it enables us to apprehend all knowledges of the same subject matter, however numerous and scattered be the individuals in whom they respectively inhere, as a unit, to denote them by

a single name, to recognise them, to discourse about them. This would be impossible if the severality were not veiled or hidden by unitive likeness.

4*b*. Science is either theoretic or practical. A theory is an explanation—an explanatory thesis or a system of explanatory theses. Theoretic science is science that is explanatory, *e.g.* geometry, geology. Practical science is knowledge of a system of rules respecting means available to man. Arithmetic, logic, rhetoric, and the sciences of painting and shoemaking, are examples of practical science. Certain sciences are compounds of theoretical and practical sciences. Logic is such a compound, and has consequently occasioned controversy as to whether it be a theoretic or a practical science. Practical science has never been adequately discriminated from art, nor art from skill. These it is necessary to define in order to rescue the idea of science from partial confusion. Skill is power to do *felicitously* what the agent intends. It is either congenital or acquired. Congenital skill is strikingly manifested in the insect world. Acquired skill is either regular or irregular, the former when it does, the latter when it does not, consciously proceed on rule or result from such proceeding. Skill in hitting the mark is an example of irregular skill. It results from practice unaided by rule. It is incommunicable by words. A certain dyer endowed with extraordinary skill in compounding his ingredients was ignorant of the rule according to which his acquired skill proceeded. Irregular skill whether congenital or acquired is the source of all regular skill. Homer working according to unknown rules produced in the *Iliad* manifestations of poetic rule which contributed to engender the art of

poetry and enabled Virgil to apply regular skill in the production of the *Æneid.* Art is *regular skill developed by* practical science.[1] Practical science is essential to art, but the converse is not true: art is not essential to practical science. One might know every rule in arithmetic and be unable to do a sum. Paralysis might deprive a painter of his skill and not of knowledge of the rules of his art. Note that explanatoriness, not privation of action, is the *differentia* of theoretic science. In its conscious state practical science no more involves action than theoretic science. An arithmetician revolving in his mind the rules of his science without applying them in calculation is as purely contemplative —as absorbed in discernment unconnected with action —as the geometrician revolving his theorems. Neither the skill nor the action of which a practical science is the condition is essential to its conscious state: the ideas of the skill and the action are essential to it, but neither the skill nor the action. Practical science is practical not in the sense that its discernment, like that of looking, listening, or scrutiny of any kind, is involved with action, but that its *cognitum*—what it discerns—consists of practical rules. A reference to the seventh of Sir William Hamilton's *Lectures on Metaphysics* will show that the ground or reason of my division of science into theoretic and practical is different from that of Aristotle; that I charge the word "theoretic" with a meaning which Aristotle ignored, viz. explanatoriness, and that I bring to the front a face o

[1] Dr. Whewell mistakes irregular skill for art. "Art," he says, "is the parent, not the progeny of science." Irregular skill is indeed the parent, not of all science but, of practical science, and through science of art: it is the parent of practical science and the grandfather of art. See *History of the Inductive Sciences,* Book iv. chap. v.

the connotation of the word "practical" which he had not in view. The change puts in bright relief the difference between science and art which, had it been visible to Seneca, would have exempted him from the error, that philosophy is active as well as contemplative. *Philosophia et contemplativa est et activa: spectat simulque agit.*[1] It is art, not science, that is active—that has action involved with discernment. The confusion of art with science, by the way, has been favoured by the ambiguity of the names of practical sciences: they denote not only the sciences, but also the corresponding arts.

CLXIII.

Scientific knowledge may be either thorough or short of thoroughness. It is thorough when it is knowledge of all that is humanly known respecting its system of theses. Thoroughness does not suppose absence of defect. Every science is defective. When the mind is so related to geometry that it can, at will, bring before it the evidence of every geometrical proposition, its geometrical knowledge is thorough. But thorough geometrical knowledge is rare, even among mathematicians. The rungs on which they scale the mathematical heights tend to give way when they are no longer used. But that mathematicians are not able to muster geometrical evidence at will, does not suppose them to be ignorant of geometry. Their knowledge of geometry is not thorough but it is scientific, and, in spite of the defect of thoroughness, it is sufficient as a foundation.

[1] *Seneca*, Epist. xcv.

A young physician fresh from the schools usually has a better knowledge of anatomy and physiology than old and able practitioners. His knowledge of those sciences may be thorough and theirs is not.

CLXIV.

Certainty objective to scientific discernment short of thoroughness seems to differ intrinsically from certainty caused by authority or by inference from the belief of others. Contrast the certainty which a geometrical thesis exhibits to one who has studied, but has forgotten, the demonstration, with that which it exhibits to a person who has inferred its truth from the belief of others. Both discernments refer to the same object and to nothing beside; neither refers to the evidence from which it sprang; yet one of the certainties seems to differ from the other so as to make its discernment scientific, to impart to it an aspect of certitude, whereas the other confers no such aspect. It is true then that certainties, in spite of their seeming simplicity, may differ from one another as to quality, and that the corresponding certitudes differ in like manner.

CHAPTER II.

DEDUCTION OF AN UNCONSCIOUS PART OF THE MIND AND OF UNCONSCIOUS MENTAL EVENT.

CLXV.

THAT the human mind includes an unconscious part,—one of which it is unintuitive,—that unconscious events, occurring in that part and partly determined by its structure, are proximate causes of consciousness, that the greater part of human intentional action is an effect of an unconscious cause,—the truth of these propositions is deducible from ordinary mental event, and is so near the surface that the failure of deduction to forestall induction in the discovery of it may well excite wonder. And of what transcendent importance is the fact which familiar events were importunate to signify to deduction,—no less than this, that an unconscious part of the mind bears to a part of consciousness such a relation as the magic lantern bears to the luminous disc which it projects, that the greater part of intentional action, the greater part of what is mistaken for volition, in fact, the whole practical life of the vast majority of men, is an effect of event as remote from consciousness as fermentation, vegetable growth, or the motions of the planets. Coupled with physiological induction, it

establishes by overwhelming proof that all consciousness is the effect of unconscious event, and that, except in the few instances of men who, at the cost of self-denial, endeavour to live according to wisdom, all human intentional action is the effect of unconscious unintuitable event. Let us examine the evidence.

CLXVI.

1. The acquisition of a durable knowledge supposes the mind to have undergone a durable modification, one on which the relation constituting the knowledge hinges, a modification serving as a mould of consciousness but not itself a consciousness. It exists when consciousness is suspended by coma or dreamless sleep, and when the mind, though conscious, is not conversant about the thing known. This modification is such that if it were of a nature to be perceptible it would be an organ having for function the generation, on pertinent occasions, of the certitude that determines the knowledge. When visual perception involving a certain degree of attention begets in the perceiving mind the power of recognising the thing seen, it must impose upon the mind a durable modification involving the power. The mind cannot be in precisely the same state as when it was incapable of the recognition, and the modification resulting from the event must be durable, since it enables many successive recognitions, including identifications and remembrances. The modification is liable to decay and to become extinct through mere desuetude; for we are often slow to recognise those whom we rarely see, and, sometimes, the power ceases to exist. When

we recognise, the object the recognition must be an immediate effect of an action of the modification. Now, the modifications and the part of the mind modified are not objects of intuition, nor is it possible for them to be objective to a human mind until inference makes them remote objects. All acquired knowledge must hinge on such acquired modifications of the mental substance, and when an acquired knowledge is conscious the consciousness must be an immediate effect of an action of the modification, *i.e.* of an event as remote from consciousness as the circulation of the blood.

2. Incidents of human intercourse frequently give rise to unconscious equivalents of interpretations and theories of which many involve equivalents of misunderstanding and set people at cross purposes. The interpretations and theories become objective for the first time when the jostling caused by their respective equivalents occasion discussion; but it is taken for granted that they were beforehand at least obscurely in the mind. Corresponding of late by cable respecting the sale of a property, my behaviour was more or less determined by an unconscious equivalent of the theory that my correspondent and I were merely sounding each other's minds, not interchanging binding communications. I assented to certain conditions of a contract, but as these were only a part of the matter calling for mutual agreement, as there were other important terms that were not and could not well be even alluded to by cable, I unconsciously assumed that my words committed me to nothing binding. The equivalent of the theory by which my behaviour was determined was also founded on the unconscious belief

that telegraphic correspondence is not yet known to the law as evidence of contract. Not one of these theses was objective to me, but equivalents of them bore on my correspondence, and it was only when my correspondent pretended to bind me without giving me opportunity to stipulate respecting other terms that the reasons corresponding to the equivalents came to the front. Common experience attests that a large part of our intentional action is determined by such equivalents of theory, and that most of the misunderstandings of well-intentioned people are caused by them. I was waiting a few days ago for one of the little steamers that ply on the Thames between different parts of London. A boat apparently going in the direction I intended to take landed a part of its passengers at a certain point of the platform appropriated to this service. I was about to go on board but was informed that the boat was not for the destination indicated by my ticket. I resumed my seat on the platform awaiting the right boat. The incidents begot in me an unconscious equivalent of an assumption that the landing at which I attempted to board was the *sole* landing of that platform, and this cost me the loss of another ten minutes, for a boat making for my destination passed that landing and discharged and received passengers at another point of the same platform, while I, presuming that she would drop back to what I took to be the sole landing, lost my opportunity. Experience of such deceptive equivalents is not uncommon. Sometimes acquired unconscious beliefs determine our apprehensions and judgments. An unconscious false knowledge of the plan of a house caused me to apprehend one and the same man as two men and as twins. He was a waiter who twice entered a room in which I

was breakfasting by the same door and made his exit by another. My unconscious knowledge of the plan of the house excluded the supposition that he could re-enter the room without re-entering by the door through which he had gone out, and this split him in my apprehension into two men, who on account of their extraordinary likeness I mistook for twins. My unconscious knowledge of the plan of the house had never been a conscious knowledge. It was the offspring of my perceptions of two sides of the house, viz. the front bounded by one street, and a gable bounded by another, and also of several parts of the interior. When I studied the question, Why I had taken the man to be two men, it was at once obvious to me that my erroneous knowledge of the structure of the house was the cause.

The grounds of our judgments are often knowledges so remote from consciousness that we are not always able to bring them promptly into view, and yet, without them, the judgments would have been impossible. Unconscious knowledges are either quick, slow, or moribund; the quick being those that exclude the possibility of a conscious knowledge incongruous with them, the slow those that admit such a possibility but when we look for them are not prompt to present themselves, the moribund those that need extraordinary stimulus to elicit in them a sign of life, such a stimulus, for example, as the re-reading of a half-forgotten book. The moribund bear only in extremely rare instances upon the formation of apprehension and judgment, the slow sometimes do and sometimes do not bear upon it, the quick always contribute to the determination of pertinent apprehension and judgment. Reasoning, according to Archbishop Whately, consists in remind-

ing.[1] There is an overstated truth in this remark: argument frequently refers the disputant to a slow unconscious knowledge the tardiness of which gave room for an incongruous judgment. The possibility of entertaining two mutually contradictory knowledges is due to the inertness of a part of the unconscious mental modifications on which knowledge depends. Without it there would be no room for supplementary inference. If a man be challenged to give his reasons for a judgment determined by unconscious knowledge, he at once assigns the thesis unconsciously known as his reason, as though it had been objective and truly a reason. It was not a reason, but a mere equivalent of one.

Not only our judgments, but all our indeliberate acts, are caused by the bearing of unconscious equivalents of reasons upon instinct, which equivalents, when we have occasion to explain our behaviour to ourselves or others, pretend to memory to have been conscious and therefore true reasons. Our behaviour is more or less influenced by unconscious equivalents of assumption respecting our own social and intellectual rank and those of the person with whom we are in intercourse, equivalents that for the most part work well but sometimes betray. We tend when in company, for example, as member of a company that, like parliament, has a public function, to differ as organ of sentiment from what we are when alone, and in serious companies from what we are amongst the convivial, or in the relaxation of the family circle. When cognisant of ourselves as co-operative with an important social

[1] "Now to *remind* one, on each occasion, that so and so is referable to such and such a Class, and that the class which happens to be before us comprehends such and such things,—this is *precisely all that is ever accomplished by Reasoning.*"—*Elements of Logic*, Book i. § 4.

body, we apprehend as though the company had usurped a part of our mental faculty and participated all our sentiments that relate to its ends and means, especially apprehending in us its own importance and its superiority to all mere individuals. But the difference is not due to a consciousness of being a part of the company: the knowledge on which it does depend is *always* unconscious, for I do not here refer to any inflations of pride or vanity caused by consciousness of being a member of an important body. I have shown that our knowledge of customs originates latently: the unconscious knowledge thus originated determines equivalents of assumptions, which in turn determine routine intentions and plans. An unconscious equivalent of an assumption that his servants are at work at their usual avocations contributes to determine the intentional action of the master. He proceeds upon the unconscious equivalent of a conscious belief that his cook has prepared his breakfast, that it will be served to him at the customary time in the customary place, that editors and printers have been at work to provide him with his morning newspaper, that mail-carriers, postmasters, and post-office clerks have been busy in expediting his morning mail, that bankers and bank clerks are at their accustomed post to honour his cheques, that shopkeepers are in their shops and will give him of their wares whatever he needs at customary prices, that, in fine, the whole social routine is in operation ready to concur with his intentional action. He does not *think* of any of these things. He no more thinks of them than of the sufficiency as support of the untried part of *terra firma* to which when walking the impending step is about to commit his weight.

Note in this connection that tardiness of knowledge does not exclude, nor does its opposite always co-exist with, a high degree of intellectual power. All the knowledge of a weak mind may be alert and much of the knowledge of a strong one slow. A mind may be massive, profound, acute, constituted to give out its knowledge in the best literary form if there be due pressure of knowledge in the fountain, yet embarrassed by tardiness of knowledge and concomitant incapability of erudition. Such a mind was that of Montaigne. He says of himself in his essay on Pedantry—"I go here and there culling out of several books the sentences that best please me, not to keep them (for I have no memory to keep them in) but to transplant them into this work, where, to say the truth, they are no more mine than in their first places." The leaked knowledge is not altogether lost to the mind; it falls into the reservoir of slow unconscious knowledge from which it may be sometimes laboriously pumped up into consciousness. The defect did not frustrate the faculties that have made Montaigne a classic. Amongst other achievements they originated the famous argument against miracles accredited to Hume. Another important consideration which our argument suggests is that all tardiness of knowledge is erroneously ascribed to defect of memory. According to the strict meaning of the term, remembrance, to which our definition of Remembrance adheres, Montaigne's defect was not of memory, but of a faculty not hitherto discriminated,—an important branch of the faculty of redintegration. The name, recollection, if it had not been otherwise appropriated, would befit, as common name, the consciousnesses which it is the function of the branch faculty to generate. I have thought of the

word, "rassemblance," from the French word, *rassembler*, as a suitable term. Such a mind may excel at analysis and discrimination, and, as regards expatiation, be a cripple. It is obvious, I take it, that the unconscious knowledges in respect of which redintegration behaves so variously are durable modifications of an unconscious part of the mind.

3. Consciousness includes intimations which enable us to count upon the promptness of certain unconscious knowledges, and warn us of the tardiness of others. I was about to qualify the intimations as inexplicable, but I am reminded that an emotion of confidence sometimes intimates to invention that the mind is pregnant; also that a consciousness analogous to sensation sometimes intimates to memory that it is a clue to a remembrance (§ x. 5). If, at the suggestion of the analogue of sensation, one apply himself to recollect, and if the analogue intensify, it makes him aware that he is approaching remembrance, but if, on the other hand, it grow faint, it plainly signifies to him the contrary. To the literary man the emotion seems to say,—"Now is the time to write," to the mathematician, "I am about to solve the problem for you," to the poet, "Your muse is about to sing." These are distinct intimations, and may differ only as to distinctness from those which ordinarily enable us to count on the promptness of knowledge not at the time conscious. This intimacy of connection between consciousness and its proximate unconscious causes establishes that the concrete subject of the modifications constituting or serving as hinges of unconscious knowledge, is either a mind or a part of a mind, and if it be proved that this concrete is a brain then it must be acknowledged that the brain is

a part of the mind. Admitting that there is an immaterial and durable subject of consciousness, and that consciousness is the result of the action of the brain upon this subject, it is not admissible that the subject is exclusively the mind; as subject of the modifications on which unconscious knowledges hinge,—knowledges on which consciousness counts and which it mnemonically mistakes for conscious knowledges and reasons,—the brain must be reckoned a part of the mind. Thus far I have demonstrated that the human mind includes a part which is an unconscious concrete, or sum of concretes, and that modifications of this part are hinges of knowledge.

4. It is impossible to discern at a glance all the reasons constituting the demonstration of a theorem which, like the following theorem, The square of the hypothenuse is equal to the squares of the other two sides, depends on demonstration of many other theorems. The unconscious knowledge caused by the antecedent demonstrations bear upon consciousness conversant about the final demonstration as though they were conscious knowledges. They do so without the intervention of memory. When the conclusion is flashing upon certitude the student is not remembering that he had assented to the truth of the antecedent theorems. The antecedent demonstrations prepare the mind to be convinced by the final one without the aid of their contemporary objectivity. They leave behind them mental modifications—unconscious knowledges—which are unobjective auxiliaries of the final demonstration, as the antecedent sounds of a melody leave behind them inaudible mental modifications which impart to the present sound a significant sweetness. Cardinal New-

man's analysis of Inference into formal and informal inference all but penetrates to the bearing of unconscious knowledge on inference. He finds that inference syllogistically expressible is valid only for discovery of the abstract, and that, to penetrate and embrace the concrete, the illative faculty must apply itself in a way with which logical formula is incommensurate. "For genuine proof in concrete matter," he says, "we require an organon more delicate, versatile, and elastic than verbal argumentation; . . . thought is too keen and manifold, its sources are too remote and hidden, its path too personal, delicate, and circuitous, its subject matter too various and intricate, to admit of the trammels of any language, of whatever subtlety and of whatever compass. . . . And to this conclusion he comes, as is plain, not by any possible verbal enumeration of all the considerations, minute but abundant, delicate but effective, which unite to bring him to it; but by a mental comprehension of the whole case, and a discernment of its upshot, sometimes after much deliberation, but, it may be, by a clear and rapid act of the intellect; always, however, by an unwritten summing up, something like the summation of the terms of the algebraical series. . . . such a process of reasoning is more or less implicit, and without the direct and full advertence of the mind exercising it."[1] We have seen that even in demonstration unconscious knowledges—unconscious mental modifications—contribute to cause certitude. Are not these the motives or moving powers which, without the direct and full advertence of the mind, (it is but a step from partial to complete inadvertence) contribute to cause the certitude essential to the conclusion. It seems then

[1] *Grammar of Assent*, pp. 264, 285.

that the guaranteed certitude consequent to evidence of which all the parts are not simultaneously discernible is in part an effect of unconscious mental action,—action of an unconscious part of the mind; if the brain be, as I shall prove it to be, either the whole or a part of the unconscious part of the mind, the certitude is more or less an effect of cerebration. This supposes that material events, as unlike discourse as fermentation is unlike it, contribute to fashion the greater part of even our guaranteed certitudes, which of course casts a shadow on the guarantee.[1] So long as we were under the delusion that a guaranteed certitude is an immediate effect of an instantaneous conspectus of the evidence, the guarantee might pretend to be irreproachable, but not when it is found to be the offspring of a corporal event. Sometimes, in dream, cerebration engenders an emotion of the kind essential to intuition of wit, and therewith glorifies a platitude, as the glamour cast by Puck upon Titania glorified the ass ears of Bottom. If it can dupe us as regards wit, why not as regards certitude?

5. Whence comes the train of ideas or rather the train of mental events, which, besides ideas, includes emotions and involuntary intentional actions, *e.g.* quasi-attention, and the impulses to speech in those who are given to think aloud, especially in the insane? We

[1] The shadow should serve to humble our intellectual pretensions, not to destroy our faith in the faculty of knowledge. Happily such shadows do not usually destroy the certitude on which they fall, and common sense protests that to keep ourselves, if the certitude give way, from tumbling into the Pyrrhonic ditch, we should put faith,—faith in the mental constitution, or, at the worst, an *arbitrium*,—in its stead.

are not conscious parties to the generation of the train of mental events. We have some power to determine the channels in which it shall flow, but none to originate or arrest it as a whole. In respect of it we are like the helmsman who has power to give direction but not motion to the ship. Even our directive power over it is often in abeyance,—always in dream—and often we are barely able to make head against it. It strives with us in what is termed "distraction," alternately vanquishing and succumbing. It presupposes an underlying train of unconscious events occurring in an unconscious part of the mind,—a train that, according to induction, is started, and during waking life for the most part more or less ordered, by the action of our environment upon the organs of sense, and when not so ordered, as in dream, gambols off into inverisimilitude and incongruity. From this train of unconscious events underlying and causing the stream of consciousness known as the train of ideas, proceeds remembrance, reasoning, poetry, eloquence, music, invention technically so called, and discovery of every kind, the devices of the crafty, and the beginnings of all intentional action, volition excepted. From this source emanates design. The train of ideas or rather of mental events often undergoes a notable enhancement consequent to great increase of knowledge. It presents to deliberation fewer unsatisfactory suggestions, and more frequently excludes deliberation by yielding at once, spontaneously, without question, to occasions of action, satisfactory ideas what to do. Napoleon on the field of battle, I take it, had less occasion to deliberate as experience modified the unconscious part of his mind. Need to deliberate is inverse to experience and to native mental power. The change thus wrought

by experience is latent: it supposes an unconscious part of the mind, a part wherein it occurs.

6. Dream supposes the action of an unconscious faculty. We seem to ourselves in dream to converse with real men and women, and to acquire from their words ideas that had no existence in our minds prior to the significant action of the words. Yet *unconscious equivalents of the ideas* must exist in our minds antecedently to the words, and contribute to the selection and collocation of these. An unconscious part of the mind modified by such equivalents must cause in another part a consciousness of what seems to be speech, and, by means of the phantasm of speech, the ideas corresponding to the equivalents. The equivalents and the causing action cannot reasonably be held to be events extrinsic to mind. They must be allowed to be unconscious mental events. Not only does the unconscious part of the mind which originates dream invent what seems to be conversation, but also, on occasion, a long series of verisimilar events all tending with dramatic fitness to a *dénouement*. The action of this unconscious faculty is not confined to dreams. Thackeray tells us that sometimes, when composing dialogue, the words of the imaginary interlocutor would obtain in his mind in advance of the idea of what they signified, and impart to him that idea. The words would seem to be uttered by the imaginary character to whom they were ascribed, and the idea they expressed was sometimes so unexpected and surprising that Thackeray would turn upon the phantasm and ask "How the deuce did you come by that idea!" On this kind of action depends doubtless a great deal of what in spiritualism is not imposture. This faculty in poets has glorified their

dreams with verse, for example, those of Goethe and Coleridge; it has in dreams solved problems for the mathematician. Goethe distinguished his intellectual yield into two kinds, viz. that originated not only in but by his mind, and that originated in, but not by, his mind. The latter consisted of what came to him from the unconscious part of his mind, unexpected and unsought. The idea of the Muse is probably due to such a discrimination. Latent experience is continually engendering in waking minds, and for the most part during sleep, unconscious knowledge of the quantity of the time between some past event and the present. The knowledge is for the most part vague, is often wide of the truth, but it is sometimes very near what is indicated by the clock. Most people know on waking about how long they have been asleep. Many persons have the power of so affecting themselves by a resolution to awake at an unusual hour that they awake at that hour or thereabouts. The instances of the efficacy of this kind of resolution are so numerous as to preclude the supposition of chance coincidence. What gives effect to the resolution? Is it a part of the mind, or merely the nerve and muscular apparatus, which, as regards action presently consequent to intention, is commonly held to be the automatic instrument of intention. But is it credible that this apparatus could be efficient as regards an intention that is to take effect after an interval of five or six hours and during sleep? The awakening force must, it would seem, be mental. Whatever it be, it co-operates in a most mysterious way with an *unconscious equivalent of an* intuition of a quantity of time. It does not necessarily follow that this equivalent is a mental modification, but that it is, seems to be conclusively though indemonstratively proved.

7. Unconscious mental events alter our beliefs. The events suppose an unconscious part of the mind,—a part in which they occur. Mr. Lecky, in his *History of Rationalism in Europe*, gives striking instances of this operation. The *Grammar of Assent* treats of it as follows:—"Again; sometimes assent fails while the reasons for it and the inferential act which is the recognition of those reasons are still present, and in force. Our reasons may seem to us as strong as ever, yet they do not secure our assent. Our beliefs, founded on them, were and are not; we cannot perhaps tell when they went; we may have thought that we still held them, till something happened to call our attention to the state of our minds, and then we found that our assent had become an assertion. Sometimes of course a cause may be found why they went; there may have been some vague feeling that a fault lay at the ultimate basis or the underlying conditions of our reasonings; or some misgiving that the subject matter of them was beyond the reach of the human mind; or a consciousness that we had gained a broader view of things in general than when we gave our assent; or that there were strong objections to our first convictions, which we had never taken into account. But this is not always so; sometimes our mind changes so quickly, so unaccountably, so disproportionately to any tangible objects to which the change can be referred, and with such abiding recognition of the force of the old arguments, as to suggest the suspicion that moral causes, arising out of our condition, age, company, occupations, fortunes, are at the bottom. However what once was assent is gone; yet the perception of the old argument remains, showing that inference is one thing and assent another." . . . "And as assent sometimes dies

out without tangible reasons sufficient to account for its failure, so sometimes in spite of strong and convincing arguments it is never given."[1] The latent decay and death of beliefs suppose an unconscious change of an unconscious part of the mind. This change, or metamorphosis, presupposes *a* cause, and *the* cause, according to induction, can be no other but experience, study of the results of the experience of others and exercises of Reason in every way,—in short, experience and discourse. By latent processes experience and discourse modify the unconscious part of the mind so as to alter the character of the train of ideas, to dispose to belief to which the mind was previously indisposed, and the reverse, and to undermine beliefs of which the reasons persist in exhibiting to the subject an aspect of proof-sufficiency. The development of what is termed the historical sense by a thorough study of history is an instance of this latent operation. This sense instinctively detects certain kinds of historical fiction. Being still in its primitive phase, its experiences do not yet afford the generalisations from which it gives us reason to expect an art of historical criticism, but what it has done in the way of demolition has abundantly proved its existence and validity.

8. Pictorial illusion is due to a latent action of unitive likeness on an unconscious part of the mind. The pictured surface reflects light upon the retina unitively like the light reflected by a scene in three dimensions, and the latent action of the former on the mind causes visual apprehension of the surface as being a scene in three dimensions. The illusion is greater or less in proportion as the likeness is greater or less. It is at a maximum in the stereoscope, because an im-

[1] *Grammar of Assent*, page 160.

portant difference is excluded, and is enhanced when we look at a picture with only one eye, because that very difference is then also excluded. The proximate antecedent of the illusion must be an event occurring in an unconscious part of the mind. Visual recognition, like pictorial illusion, depends upon the latent bearing of unitive likeness, through the eye, upon the mind. The recognition connects with no intuition of likeness, —carries with it no knowledge that it owes its existence to likeness. We learn with surprise that recognition is caused by likeness. The likeness must act upon an unconscious part of the mind and so modify it as to cause it to engender the recognition. This mental event—the proximate antecedent and cause of the recognition—is unintuited,—an unconscious action of an unconscious part of the mind. When the unaccustomed causes surprise, we do not first perceive the unaccustomed thing and then undergo surprise: the perception from the first involves the surprise, so that prior to the perception the thing must have acted upon an unconscious part of the mind and begotten in it an action constituting a proximate antecedent and cause of perception involving surprise.

9. Consciousnesses determined according to the law of redintegration presuppose unconscious events that occur in an unconscious part of the mind, events productive of unconscious durable mental modifications that are equivalents of organs relatively to the consciousnesses. After a certain visual experience of the exteriors and interiors of houses, a wall of a house cannot reflect light upon the retina of the subject without causing an image, not of a wall merely, but, of a house. Prior to the experience light reflected by the

wall of a house excites no such image. After the experience the mind must be in a state different from that in which it was before,—a state by virtue of which it generates under the stimulus of the light an image which it was previously incapable of producing. Now the events in which the state originated are such as are never objects of intuition, and are doubtless unintuitable: they occur in an unconscious part of the mind, and they impose upon it a durable modification, serving as equivalent of an organ that has for function the production, under due stimulus, of the image of a house. All knowledge augmented by sense-perception depends upon mental modifications so caused, and every emergence of a part of that knowledge from the unconscious to the conscious state, proceeds from the latent functioning of one of those modifications. The eccentric action of redintegration is perhaps more telling as evidence of unconscious mental processes than its regular operation. Instances are familiar to most minds. I knew a child who when asked what the letters c. a. r. t. spell would reply "waggon," and when asked what the letters d. o. g. spell would reply, "cat." An eccentricity of redintegration sometimes perverts our orthography in writing.

10. Latent experience (§ xcv.) consists of unconscious mental event. It supposes an unconscious part of the mind on which the event imposes durable modifications serving as equivalents of organs. The knowledges it generates are at first unconscious, and it might very well happen that some of them might never emerge into consciousness. These knowledges include knowledges of primary kinds, also quasi-inferential knowledge, such as that coal, wood, and turf, are

combustible, that all swans are white, that certain appearances are weather signs, others symptoms, that nature acts uniformly, (§ cl. 3) etc. This kind of experience sometimes begets unconscious knowledge of the characters of those with whom we have intimate intercourse, and instinct unconsciously accommodates us to the unconsciously divined character. This unconscious divination of character contributes to the grouping and segregation of people referred to by the proverb, "birds of a feather flock together."

11. Negatively-empirical knowledge supposes an unconscious part of the mind, and durable modifications of the part constituting a corresponding memory.

12. Deviations from the customary tend to excite surprise, and in certain cases surprise contemporaneous and united with, not subsequent to, the discernment of the deviation. A condition of this discernment must in such cases occur in an unconscious part of the mind, and there generate a co-operative condition of the surprise in such wise, that both conditions cause at the same time and in union the discernment and the surprise. A violent unaccustomed sound excites surprise that is not subsequent to, but contemporaneous and united with, the hearing. Surprise tends to be contemporaneous with discovery of a stranger in one's bed-chamber. If on a working day one should see a familiar thoroughfare of traffic deserted, or on a Sabbath thronged, surprise would be contemporaneous with his discernment of the fact. Now it might be objected that in these cases the discernment precedes and causes the surprise, but so rapidly and with such excitement that memory fails to acquire a record. But if this be

true it is also true that when we recognise, discernment of the thing recognised precedes the recognition, and that when one sees a friend he at first sees only so much of the friend as is imaged on the retina,—a part of a surface—and then, by the aid of redintegration, annexes to the visual image the unseen bulk and the remainder of the surface!

13. It sometimes happens that a man bent upon conduct according to wisdom is urged by indignation to a behaviour to which his conscious mind does not object, yet he neither purposes compliance with the urgency nor does it make up his mind for him: he is held in suspense for a time; and, then, there appears in his mind an idea of a behaviour opposed to that which the indignation suggests,—a behaviour conformable to peace and carrying on its face the sanction of wisdom. With this he complies, in spite of reluctance to refuse the indignation. Now what held him in suspense during the urgency of the indignation and prior to the appearance of the idea? On the avouch of memory, not a consciousness. No reason discrediting the suggestion of his anger appeared in him. On the contrary, the suggestion was recommended by the sanction of justice,—justice endorses all the suggestions of indignation. He was held in suspense by an unconscious equivalent of a motive. He had had experience of the treachery of violent counsels apparently sanctioned by justice, and the experience had founded in the unconscious part of his mind an indisposition to yield to them,—an equivalent of a prudential reason. This it was that constituted the *vis inertiæ* which resisted the pressure of indignation. Events in which scrutiny may detect unconscious equivalents of con-

scious restraining prudence are common. I say conscious prudence, implying that there is such a thing as unconscious prudence,—such a thing as unconscious equivalents of motive.

14. Design, or the formation or generation of an ideal type, pattern, or plan, (§ cxxxiv. 5) supposes the existence of an unconscious part of the mind and of unconscious mental event. No one could intend to design until he had experience of power to design; therefore a first design must be as unintentional as the growth of a tree: unconscious mental processes occurring in and evincing an unconscious part of the mind must have engendered the pattern or plan. By the way, to ascribe design to the omniscient is inconsistent. The idea of such a being supposes his ideas of what he would do to be co-eternal with him, whereas it is essential to design to begin and end; which obliged Plato to judge that creative design, and the archetypes or ideas of all things, were co-eternal with the Creator. This reduces the Creator to a mere subject of fateful ideas, —to a personification of fate. It seems then that the marvellous concurrence of aptitudes displayed by Cosmos does not presuppose design,—that the datum which is the pivot of natural theology is delusive.

15. What recalls us to the resumption of interrupted work when the cause of the interruption has so absorbed the mind as to leave no room for an intention to resume? It must be an unconscious somewhat that is an equivalent of an intention to resume. In discussion, whether with oneself or with another, the operation of this equivalent whereby we are made to revert to the question, is familiar. We differ from one

another and at different times the same man differs from himself as regards the efficiency of the mental attribute on which this equivalent depends. It is more efficient in abler minds and in the stronger states of the same mind. It is for the most part feeble in the insane, and in idiots, if it exist at all, extremely feeble. It is not resolvable into habit, for it is as efficient in respect of strange as of familiar work. Is it identical with the unconscious force which, in compliance with a purpose to awake at a given hour, awakes us at that hour? Both are equivalents of intention to do something after a certain time, one to awake after the lapse of a given time, the other to resume a certain work on the termination of a certain other work. They differ only in two respects, 1st, that one does and the other does not operate during sleep, 2nd, that the one is and the other is not interdependently coupled with an equivalent of an appreciation of a certain quantity of time and of an intuition of its completion.

16. An unconscious approximative knowledge of the weight of a thing which one is about to lift determines the amount of effort which he applies. Sometimes the thing proves to have more or less weight than the knowledge counted on, and we experience an emotion of surprise.

CHAPTER III.

THE BRAIN A PART OF THE MIND.

CLXVII.

1. We have irresistible evidence for the induction, that the unconscious part of the mind is corporal, and that the brain is either a part or the whole of it: the evidence makes it highly probable that the corporal part of the mind consists of the encephalon, spinal marrow, afferent and efferent nerves, and the peripheral parts of the organs of sense. As regards the latter we have the sanction of a datum for the belief that they are subjects of the sensations and sense-perceptions proper to them. It is true that when experience develops belief in a spiritual subject of consciousness this datum is discredited, (it has been proved to be inconsistent) and then the organs of sense are accounted mere accessories or instruments of the mind, bearing to it such a relation as a telescope bears to the visual faculty; but when the mental effects of concussion of the brain and cerebral lesions and disorders otherwise caused expose the relation of cause and effect that exists between cerebral event and consciousness, such that the brain can no longer be considered a mere accessory but must be allowed to be a part of the mind, the

credit of the datum respecting the organs of sense is so far restored that it is no longer easy to refuse to rank those organs as parts of the mind.

2. That all knowledge and skill depend upon modifications of the brain caused by experience and mental exercises of every kind, is proved by the fact that a concussion of the brain may deprive one of all knowledge and skill without impairing the power of the mind to recover both; the former from new experience, the latter from new interaction of the Ego and its environment. Certain cerebral lesions deprive the mind not of all knowledge, but of a considerable part, and others of a minute part so oddly selected that, as some one has remarked, it would seem as though Puck had been sporting with the brain. These facts shut us in to the conclusion that the extinction of knowledge or skill, or of both, is due to an effacement or impairment of durable cerebral modifications. They are conclusive that conscious knowledge and skill active are effects of an action of those modifications, that a series of unintuitable corporal events underlies, as cause and condition *sine qua non*, all such consciousness and activity of skill as cerebral lesion has the property of destroying or suspending. Concussion of the brain has been sometimes followed by a remarkable enhancement of mental faculty. General paralysis often begins its terrible work by an enhancement of mental faculty; idiotcy and bodily impotence are always the accompaniments of its regular final stage. The psychical effects of other diseases, like those of concussion, attest the dependence of mental faculty on corporal constitution, and of consciousness on corporal event. A servant girl whom disease had reduced to idiotcy was temporarily restored

to mental integrity by a fever such as ordinarily causes delirium.[1] A beginning of insanity has raised the mind of a person bordering on idiotcy to the *ordinary* level of ordinary intelligence.[2] An abscess formed under the scalp has converted a violent headache into spectral illusion.[3] Impending apoplexy is sometimes wonderfully prophetic, predicting truly the time of the death of the subject.[4] It is sometimes a source not only of prescience but also of melodramatic invention explanatory of the expected event. A patient who suffered from an excess of blood in the brain, expecting an imminent effacement of consciousness, used to undergo a melodramatic hallucination put as explaining the event. A witch seemed to rush upon him and strike him on the head with a stick. The effects of hanging and drowning sometimes corroborate the testimony of concussion and disease as regards the dependence of consciousness on cerebral event. A gentleman who in great depression of mind attempted to hang himself but was cut down in time to save his life, related that the strangulation plunged him into ecstasy in which he re-lived his childhood and boyhood.[5] Drowning has sometimes occasioned a panoramic display of the past.[6] The mental effects of narcotics, anæsthetics, and stimulants, such as opium, hashisch, chloroform, and alcohol, add their testimony to the dependence of consciousness on corporal event. We have striking instances of the dependence of the moral faculty on bodily states. Certain disorders, *e.g.* uterine changes, transform honest people into thieves. Com-

[1] *Physiology and Pathology of the Mind.* Maudsley, p. 260.
[2] *Obscure Diseases of the Brain.* Winslow, p. 273.
[3] *Ibid.* p. 457.
[4] *Ibid.* p. 312.
[5] *Ibid.* p. 440.
[6] *Ibid.* p. 442.

mon and familiar facts prove the causative and moulding bearing of bodily states upon consciousness. Sleep bears in this way on the consciousness, dreaming. Coma is a bodily state that excludes consciousness. The feeling of well-being, and the pride of life incident to health and a favourable atmosphere, are consciousnesses that result from bodily states. The differences of consciousnesses characteristic of youth and of age are effects of bodily states.

CLXVIII.

It follows from the foregoing evidence that, as regards man, every consciousness except volition is an effect of an unconscious corporal event, and that every consciousness including volition depends upon an unconscious corporal event. Had psychological research begun with, or early achieved this knowledge, it would have been spared much error. It would have been exempted from the error, that discernment of primary Kinds supposes discernment of their *differentia*. It was obvious that generalisation depends upon likeness and difference and that likeness supposes a somewhat in respect of which the like things are like. Psychologists therefore seemed to be shut in to the conclusion that knowledge of a *differentia* is a *sine qua non* of knowledge of a kind. It did not occur to them that the *differentia* might, by a latent bearing on the mind, cause, or contribute to cause, knowledge of the kind—that it might have the property of causing an unconscious corporal event of which knowledge of a kind

might be an immediate effect; in which case knowledge of a kind might obtain without knowledge of its *differentia*. Here we have an instance of mere privation of hypothesis conferring upon a thesis an air of necessary truth. So much did the thesis, Discernment of a kind supposes discernment of its *differentia*, seem to be a necessary truth, that the error persisted in spite of the incompatible fact that the *differentiæ* of many primary kinds eluded scrutiny, *e.g.* that of mankind. Had the dependence of consciousness on corporal event been known the incompatibility would have suggested the explanation that the corporal event which causes discernment of a primary kind does *not* cause discernment of its *differentia*. This knowledge, it is probable, would also have prevented the error that analysis of consciousness is incapable of discovery, — incapable of augmenting knowledge—that to be *known* is essential to the constituents of consciousness. The greater part of the wealth with which psychology enriches man is, with slow toil, quarried out of the records of consciousness.

The knowledge would have deprived of plausibility the reason of the scepticism of Hume, viz. that power is not perceptible, and it would probably have prevented Kant's doctrine of knowledge *à priori*; for, when it is allowed that the consciousness constituting an experience is an effect of a corporal event, consistency makes no objection to the competence of the cause to impart to the object, in certain cases, a symbol of power or one of absoluteness, and parsimony demands that all knowledge which can be consistently accounted the offspring, either immediate or remote, of experience, shall be so accounted. Privation of the knowledge put us under

the necessity of imputing to discourse the genesis of the knowledge which I have termed *quasi-inference*, and of explaining the fact, that neither apperception nor memory is cognisant of any such discourse, by the hypothesis that, owing to its delicacy and rapidity, the discourse eludes experience.

CHAPTER IV.

WISDOM.

CLXIX.

I AM not aware that psychology has hitherto undertaken to answer the question, What is Wisdom? It seems to have ignored, as lying wholly without its province, the most precious of mental qualities. Who can at once say what is the *differentia* of Wisdom,—what distinguishes it from knowledge, what from the sagacity of "the unjust steward"? Christ seems to refer to it as though it were mere sagacity. "The children of this world," he says, "are in their generation wiser than the children of light." But the word "wise" in this connection does not refer to the wisdom which St. John probably denotes by the word λόγος,—the wisdom that is at once an imperative and an alacrity to obey,—the wisdom that incurs the cross to save mankind. The nature of this wisdom I now proceed to explain. It is so related to Virtue or Moral Goodness that I must first explain what the latter is,—a task by no means made easy by actual public knowledge.

CLXX.

In proportion as the progress and spread of science makes words more frequently and exclusively the immediate objects of thought, violations of etymological connotation become more sensibly obstructive. The perfection of language makes etymological and received connotation identical. We are approaching a time when experience of obstruction will directly acquaint the learned with the full meaning and importance of the deliverance of Condillac, *Un science est une langue bien faite,* and that it behoves a French Institute to add to the humble office of registering and promulgating the enactments of the lingual instinct the higher one of conforming language to a rule that may be termed *the rule of right connotation.* This law, I take it, was descried by Leibnitz when he imagined his scheme of a universal language,—that of forming the whole of language, as the lingual instinct had already fashioned the numerical part of it, out of a few elemental signs combinable into terms connotative of the composition and general places of the things they denote. Chemistry has of late conformed its language to this law.

Now the word "Moral" and its cognates have been wrenched out of the order of right connotation and loaded with incompatible meanings. The primary and etymological meaning of the adjective "moral" is "pertaining to manners;" as qualifying the term "Science" it is applied in this sense, Moral Science being science that is conversant about manners. If this were the sole meaning of the adjective, the cognate term "Morality" should signify the specific attribute of manners.

But as qualifying the term, "sense," the adjective imports very differently. Its reference to manners in this connection is remote, and makes the name of which it is a constituent connote an attribute which may, for the nonce, be named "conversantness about virtue and vice." It is still more warped from its primary meaning when it qualifies the term "man." To say of a man that he is moral is to say that he is good. In this connection the word "moral" implies the identity of morality and goodness. As constituent of the term, "moral apprehension," it implies that all apprehensions of manners are not moral, but only those that approvingly refer to virtue and disapprovingly to vice; whereas there are bad approvals and reprobations of manners; approvals and reprobations which, according to the primary meaning of the word "moral," *are* moral. The word "immoral" does not signify, as a law of language requires, the opposite of the word "moral" applied according to its primary meaning. The word "immoral" means "bad," and its cognate term "immorality" means "badness."

Such being the tangle of incompatible meanings in which the words *moral, immoral, morality, immorality,* are involved, I trust I am warranted to help myself to an instrument of exact expression by the coinage of even so uncouth a barbarism as the word "*moralness.*" My need requires the coinage of still another word, but happily not one of such barbaric repugnancy,—the word "*preter-moral.*"

CLXXI.

We say of agreeable and of what seem to be useful

things that they are "good." Does this imply that goodness is the *differentia* of the agreeable and seemingly useful? Shall we not rather say that goodness is the *differentia* of what is innocently agreeable and what is useful? This being allowed, goodness is divisible into two species, one differentiated by the property of eliciting a peculiar kind of approval, known as moral approval, the other not so characterised. Moral approval is undefinable. If the reader have not experienced it I am unable to make myself intelligible to him in respect of it. The species of goodness that is of a nature to elicit moral approval may be distinguished as Moral goodness, the opposite species as "preter-moral" goodness. The term "badness" denotes the *differentia* of what is hurtful. It is divisible into the two species, hurtful things that are, and hurtful things that are not, of a nature to elicit the peculiar kind of reprobation known as moral reprobation: the former may be distinguished as moral, the latter as preter-moral, badness. What moral goodness and moral badness have in common is the property of eliciting moral discernment. Moral discernments are individuals of a genus which comprehends and is comprised by the two species, approbatory and reprobatory moral discernments.

Now, by what name sonorously as well as significantly cognate to the word, Moral, shall we denote the property of eliciting moral discernment? Not by the name, Morality; for that is unchangeably committed to an incompatible meaning. Let "moralness" be the name, a name to which I annex a primary and a secondary meaning. According to the first, the term Moralness denotes the attribute by virtue of which an *animus*, or what passes for one, elicits moral discern-

ment either approbatory or the reverse: according to the second, it is the specific difference of the moral faculty or faculties. Let the contradictory opposite of The Moral, viz. *what is without Moralness,* be known as the "preter-moral." An *animus* that *per se* is incapable of eliciting moral discernment is "preter-moral," *e.g.* Prudence, the mental quality that disposes us to provide for future exemption from pain.

CLXXII.

Moralness is divisible into that which does, and that which does not, interest the faculty of remorseful apprehension,—Conscience. It is essential to the apprehensions of this faculty to refer to the imperative termed *obligation,* so that moralness which interests conscience might be correctly defined as moralness determined by the sentiment of obligation. This species of moralness I name *impero-moralness,* and the opposite species, as referring not to obligation but to a species of beauty, *e.g.* that of Generosity, Courage, and Fortitude, I term *pulchro-moralness.* Accordingly, moral goodness is either "impero-moral" or "pulchro-moral;" and moral faculties are either "impero-moral" or "pulchro-moral."

CLXXIII.

Obligation is a species of imperativeness. It manifests itself as a command,—for the most part as a command of God; *sometimes as impersonal.* It is

essential to the command to be intuited in a sentiment involving a momentum towards obedience. This pressure or momentum causes it to be regarded as a species of compulsory force, and has procured for it the name, Obligation. Obligation is comprised by the two species, duty, and obligation in respect of what is not due.

CLXXIV.

Duty is for the most part confounded with obligation. It differs from one species of obligation as supposing something due, and therefore a relation of debtor and creditor between two or more persons. Obligation to conform to purity does not suppose such a relation. Duty and Right are correlatives, but not so Obligation and Right. No right corresponds to obligation to conform to purity. The confusion of obligation and duty is owing to this fact, that experience has been largely conversant about duty, and very little about obligation respecting what is not due. Right is the *differentia of the* meum *and* tuum *determined by duty.* It supposes that something morally belongs to its subject, *e.g.* land, money, a certain degree of immunity,—that there exists a free agent able to deprive him of what morally belongs to him, and that, if the free agent undergo a temptation to make use of the power, he owes a recusant volition to the owner. If a thing be owned by one person and possessed by another, the right of the owner supposes a duty in the possessor to restore the thing when required.

CLXXV.

1. Let us now examine the mental qualities—the qualities or elemental parts of mental structure—on which depend the affections and emotions that are of a nature to elicit moral approval.

2. Language is indebted to Comte for the useful term, Altruism. Regarding it as public property, I restrict it to a less comprehensive meaning than that annexed to it by Comte. I use it as denoting disposition to confer benefit on another. We may be sordidly disposed to confer benefit on another, as when a slave-owner, with venal self-regard, is disposed to promote the health of his slaves; or we may be disinterestedly disposed to confer benefit on others, as instanced in the good Samaritan. But disinterested altruism is not the contradictory opposite, it is merely the contrary, of sordid altruism. There is an altruism that is about equally remote from sordidness and disinterestedness, *e.g.* that of parental love, and that of patriotism. Knowledge of the relation of such or such a human being as "child" to the Ego is the pivot of parental love. An alien infant fraudulently presented as her own to a newly-made mother as soon as relief from the pain of parturition enables her to nurse, will elicit parental love, and her own might become to her an object of aversion. In like manner egotism is the pivot of patriotism. Knowledge, whether true or false, that such or such a country is in the relation of "native land" to the Ego, is the nucleus of patriotism. A love of country founded on a false knowledge might make a

man the enemy of his native country. Both affections are equally remote from sordidness and disinterestedness. Both are of great, one of indispensable, utility. Both are teeming sources of self-sacrifice and injustice. Accordingly, Altruism is divisible into *sordid* and *non-sordid* altruism, and the latter into *egotistic* and *non-egotistic* altruism.

3. Heterogeneous sympathy is proper to non-sordid altruism. It tends, when it instigates or is the motive of behaviour that evinces extraordinary self-denial, to commend its subject to moral approval, but much more when it seems to proceed from that which is non-egotistic.

4. Non-sordid altruism is either reverential or benevolent.

5. The mental quality, Benevolence, is *the inconcrete subject of non-sordid altruism, and, therein, of heterogeneous sympathy* (§ xcii. 1). Its action is dependent on ascriptive emotion (§ xcii. 2). Owing to this dependence its sympathy is at first, for the most part, confined to objects of affection, such as those of the parental, filial, fraternal, conjugal, friendly affections; but it is capable of expanding beyond the sphere of affection, of developing into philanthropy; and finally of embracing all conscious being. Let benevolence that is a constituent of affection be distinguished as "affectionate" and that which generates sympathy independent on affection as "super-affectionate." Sympathy with a stranger in distress is an emotion of super-affectionate benevolence. I mean the term, "super-affectionate" benevolence, to connote

not only non-dependence on affection, but also superiority, in the view of the moral faculty, over affectionate benevolence. The latter frequently incites to injustice in favour of its object; the former has no such tendency.[1] Nearly nineteen hundred years ago a conspicuous example of what may be termed "adult" benevolence appeared in Palestine. In it was combined affectionate and super-affectionate benevolence, the latter in such ascendency, we must presume, as to exclude, at least under ordinary circumstances, temptation to be unjust. Let benevolence of this degree of development be distinguished as *adult*, and all beside as either *embryonic* or *adolescent*.

The division of Benevolence into "affectionate" and "super-affectionate" detaches a species of benevolence from a connection that tends to hide disinterestedness or at least to prevent its appearing in sharp relief. The pretension of egotistic benevolence to be disinterested is not beyond reasonable question: that of non-egotistic affectionate benevolence, *e.g.* the benevolence involved in friendship, though in view of the moral faculty it excel the former, is not above suspicion: that of super-affectionate benevolence does not admit of reasonable question. It is not reasonable to doubt the disinterestedness of pain caused by apprehension of a stranger's pain. Such an emotion, fraught with longing to relieve, excludes room for self-regard. I do not refer to any self-denying act which the sympathetic pain might instigate, because this would give opportunity for a sophistical rejoinder, whereas the example I propose paralyses the opposite

[1] Christ exacts super-affectionate benevolence capable of embracing enemies, and makes small account of affectionate benevolence, as being a virtue not wanting even to Publicans.

contention. If I should cite what seems to be a self-denying act for the relief of the stranger, it would be answered that the agent had a self-regarding motive, viz. to relieve himself of the sympathetic pain or to acquire sympathetic pleasure. By putting the sympathetic *animus,* and not an act which it might incite, as the subject of disinterestedness, I cut off space for sophistical evasion. I do not imply that egotistic and affectionate non-egotistic benevolence are not disinterested, I merely contend that disinterestedness is essential to "super-affectionate" benevolence.

The quality, Benevolence, is at once a faculty and a propensity, a faculty as being intuitive, a propensity as being the matrix of beneficent motive and intention. As intuitive faculty it unites with ascriptive emotion in the apprehension of the object of its sympathy. The discernment of a given emotion of another is quite different when it is involved in ascriptive emotion only and when it is involved in a sentiment partly determined by ascriptive emotion and partly by benevolence. The intuitive function of benevolence embraces moral intuition involving moral approval and reproach: in other words, it is a moral faculty. Grateful moral approbation tends to swell the heart of the benevolent observer of any striking instance of benevolent self-sacrifice, and compassion for pain believed to be caused by the cruelty of a free-agent is a matrix of moral reprobation of the agent.

6*a*. The mental quality, Reverence, is, quâ *faculty, the source and subject of the sentiment of the sacred, and,* quâ *propensity, the source of deferential behaviour,*—whether worship or mere unaffected politeness. It may be a source of altruism, but not of that which

involves heterogeneous sympathy. It exists at first in the germinal state, and, to germinate, needs to be quickened by the bearing on it of a personal object that presents to it an aspect of sacred dignity and authority. A good and judicious father presents to it such an aspect. It is because fathers are, for the most part, the first and most imposing of the objects of reverence, that God is apprehended as "Father." The filial sentiment is the pivot of godliness. But when reverence is so developed as to have become a dominant habit of the mind, it is capable of surviving faith in the Personal divine, and of seeing sacredness in man however flagitious or imbecile. All conscious being may, in this widowed state of the faculty, be sacred in its view; not in such wise as to protect noxious forms of life, or prevent one from complying with the predatory system on which the existence of certain races of men has been made to depend, but so as to make one recoil from the infliction of useless pain. Man, above all, may rank in its view as a being of inalienable sacredness, but not to the prejudice of needful austerity; not so as to exclude its sanction of the civil surgery which relieves both society and the criminal of a life or liberty that can only be a nuisance. The sentiment of sacred duty—I shall show that there is a sentiment of duty which discerns no sacredness in its object—is proper to reverence. It originates as sentiment of obedience *due* to personal authority, primarily to that of the parent, especially the father; subsequently, when belief in God obtains, to the authority of God. According to a very rare experience *it is capable of surviving faith in a Creator and Providence, and then it is a sentiment of obedience due to an impersonal authority.* The few who have

experienced the Impersonal imperative have not found that its force is less than that which they apprehended as being the command of God. I have the hope that amongst the good and able of those whose faith in a Creator and Providence has been extinguished by science and by their experience of the infernal in nature there are some who can bear witness to the existence and force of the impersonal imperative, and that this testimony will sufficiently corroborate me.

6*b*. That reverence is incapable of heterogeneous sympathy is a truth which it peculiarly concerns the Christian, and more peculiarly the Christian of interior life, to know. What chiefly differentiates the religion of Christ is that it enjoins Charity, and charity is super-affectionate heterogeneous sympathy,—not that which pities and disposes to succour one's own children in pain, or those who are agreeable to us, but that which knows no distinction of persons, which goes out to a man in pain whether he be or be not of our blood, country, or religion, whether he be repugnant or agreeable,—the love of the neighbour enjoined in the eleventh commandment. How potently the human mind is influenced by reverence is shown by the history of religion, and how feebly by benevolence the flagrant history of "man's inhumanity to man" attests. To apply the hot-house ardour of godly reverence for the development of the feeble germ of benevolence so as to enrich human nature with adult benevolence, is the intention of the eleventh commandment, and, if my Christianity do not deceive me, was the main motive of Calvary. Thus far the divine intention has been in some degree baffled by an error which mistakes a counterfeit of charity for charity. The counterfeit

the motive. The agent is moved only by re
The direct nutritive value of the act serves
enhance godliness. Heterogeneous sympathy
of no intervention between it and the symbo
ascribed emotion which is its proximate cau
cannot be roused by the idea of *God's sake* solic
to come into existence and embrace the subject
ascribed emotion. *Whatever pretends to be char*
is not the counterpart of what a benevolent infide
experience under the same circumstances, is not
An Epicurean motive avails itself of the er
nurtures it. A peculiar pleasure attends the e
of godliness when the subject is not in what is
as the "dry" state. The pleasure varies from
mum to ecstasy. Its inconsistent tendency t
one to violate duty is not unfamiliar to the r
of the Roman Catholic Church. Madame
detected it moving her to neglect her husba
household duties for the luxury of prayer. V
the Curé of Ars, whom popular authority has
canonised, deserted on his way to the camp t

her passion for ministering to the loathsomely diseased, used to disregard the prohibitions of her spiritual director. The pleasure of godliness is at once the motive and reward of martyrdom, of ascetic self-torture, and of missionary zeal. This pleasure tends to absorb one in God, to magnify Him at the cost of all beside, to strip the rest of being of importance except in so far as it serves to glorify God. It would fain efface all other pleasure and make worship the eternal occupation of the blessed. The bigotry begotten of this pleasure distrusts benevolent emotion because it is not the love of God, and will have charity to be the love of God with a human distress stuck in it. If benevolence interfere, people of vocation[1] think that it is a

[1] The ascetic, natural priest, or man "of vocation," is a natural species; and this species Christ made the key-stone of Christendom. The apostles belonged to it. The young man who kept the commandments from his youth upwards, but could not sell all he had, give to the poor and follow Jesus, did not belong to it. He was a good natural layman, not a natural priest; he was without vocation. In the natural priest the Christian Spirit was to be first and most fully realised. To him it is possible to reckon his power and be reasonably resolute to advance against the hostile king,—to count the cost, and be sure he has wherewithal to complete the tower. To this species corresponds another, viz. a kind of man of which tendency to lean upon the priest is the *differentia*. I have seen Protestant members of this species, when they came in view of a truly sacerdotal religion, rush with instinctive impetuosity to their specific place. Of these two species Christ constructed His Church, making himself the head of the priesthood,—the great high priest. His religion, at least in its first (the actual) epoch, is essentially sacerdotal. That asceticism is a natural *differentia* determinative of a natural human species is proved by conclusive evidence. Its manifestations are as old as history, and have been so opposed to one another, so capricious, and, in many ways, so repugnant to wisdom, that they could not be reasonably imputed to an influence wholly divine. Even within the domain of Christianity they give irresistible proof of a source that is at least partially the reverse of divine. The spirit it evinces has outraged modesty by sending fanatics naked into churches. It occasioned the Epicurean

solicitation of the natural heart—of the "old man,"—that, in helping others from this motive, they are gratifying self,—that they have descended from the supernatural, from grace,—that their animus is such as might actuate a good-natured fawn.

An important truth underlies the error. Because of man's poverty as regards benevolence, Christ set Christendom upon behaving for Christ's sake as though it were benevolent,—to the end that the practice might ultimately bring home to human intuition the beauty dignity and utility of benevolence, and so lead to an intentional culture of true charity,—a direct culture of benevolence. I say a direct culture; for, the vicarious charity or counterfeit of charity which Christ set in motion was a means of indirect culture of benevolence, and has operated to such good effect that Christian charity is now, according to the intention of Christ, extinguishing the fires of hell, protesting that the apprehension of Retribution as justice is the offspring of ferocity,—a devilish thing so intrenched in human nature that even Christ could not take it by assault, one which, if not slowly sapped, must for ever pervert the moral sense. Charity alone could disabuse the mind of this error. Now, if, before science had exposed the baselessness of natural theology and Christian charity had protested against the immorality of

and culpable relish of prayer referred to in the text. It has begotten a psalmody bordering on the obscene. Witness the Song of Solomon adopted by Christendom. Even the *Imitation of Christ* is not free from the indecency. "Enlarge thou me," it exclaims, "that I may learn to taste with *the interior mouth of the heart* how sweet it is to love and *to be dissolved and to bathe in love*" (Book iii. chap. v.) The affection of this spirit to immolations, massacres, and inquisitorial tortures, is notorious. Such is the *pis aller* to which Nature restricted Christ as regards an instrument of salvation.

Christian theology,[1] a real charity had become the characteristic *sine qua non* of the Christian, at least of Christians constituting the core of the Church; if, instead of having a Gorgon of Inquisitions, Crusades, coercions into the fold of Christ, and other outrages upon liberty, hung upon its breast like the dead albatross on that of the Ancient Mariner, the history of the Church were aglow with works of genuine charity and exhibited nothing incompatible with that spirit, then infidelity, though negative in respect of a Creator and an Omnipotent Providence, would hardly be tempted to deny the divinity of the work of Christ, however at a loss to explain it, and, if rash enough to attack Christian faith, would find itself shouting to a Christendom deafened by the love of Christ. Contrast the physiognomy of benevolence with that of ascetic austerity, the one beaming true promise of prompt efficient sympathy with every joy or sorrow that has not a taint of depravity, the other the reverse. Which of these fruits signifies the Christian spirit? If the former were characteristic of devout Christians, it would not be easy for common sense to doubt, however difficult to explain certain seeming inconsistencies of the gospels, that the originator of such a divine fellowship is the way, the truth, and the life.

6*c*. The development of Reverence by Christianity is the development of what may be fitly named moral purity. Moral purity is distinguishable by its aver-

[1] Christianity is one thing and Christian theology another. Their co-existence, in scientific minds, as objects of faith seems to be no longer possible. It is to be hoped that the demolition of the theology by science is merely the demolition of the scaffolding with which the temple of Christ has been built.

sions. It is averse to inordinate sensuality and to all impulse and eagerness incompatible with power of conduct,—with the self-mastery essential to wisdom. Eagerness, in its apprehension, savours of palsy. To be susceptible of urgent temptation to violate prudence for the sake of what is, under ordinary circumstances, an innocent pleasure, seems to it an infirmity allied to the spirit of inordinate sensuality. Its aversion eradicates the loathsome appetites that beget what are known as crimes against nature. When, in respect of one of these appetites, we compare Pagan and Christian civilisation, the eradicating influence of Christ-developed reverence is obvious. Moral purity is averse to scorn. The words "raca!" and "thou fool!" are an offence to its lips. It is not inclined, like some modern moralists, to make virtue a shilelah and the world of bad men a Donnybrook, counting it a privilege to smash the wicked. It is averse to fierceness, including anger of every kind and degree, and to the violence they inspire: its aversion to fierceness is aversion to indignation, *i.e.* to anger caused by moral evil; but this aversion only obtains when moral purity is approaching its adult state,—when the purity protests that the story of Christ's recourse to violence in the temple is a fiction. Moral purity is the subject of impersonal authority, the "still small voice" that utters the impersonal imperative. When imperfect, as it is for the most part, it yearns for its own perfection,—a yearning analogous with that of the chrysalis to be quit of its larva.[1]

[1] This yearning is either the instigator or motive of what may be termed pure asceticism,—that which, void of fear and incapable of imputing a healing virtue to self-inflicted bodily pain, strives to detach its subject from moral impurity. The members of a religious order subject to St. François de Sales applied to him for permission to dispense with shoes. He answered, "Change your brains and keep

Politeness is the least of its graces: reverence is the source of politeness; the æsthetic faculty merely adopts, it does not beget, politeness.

Moral purity sees strength and dignity in meekness. No quality of the Christian spirit is so misunderstood as its humility, of which meekness is a species. Humility is *privation of fierceness and self-love.* Meekness is *humility* quâ *privation of fierceness.* Humility is either noble or abject, noble when its charity is modified by an intrepid aversion to wrong-doing, an aversion that is prompt to prevent by violence the evil that cannot be otherwise prevented, abject when it consists in moral idiotcy or tolerant cowardice. The confusion of noble with abject humility has discredited Christianity in the view of the pulchro-moral faculty, whereas it consists with an adamantine manliness in comparison of which fierce manliness is mere pottery. Calvary made conspicuous a sublime example of adamantine manliness. Noble meekness is a species of fortitude: it is fortitude that excludes convulsions of fierceness, compelling quietude when pain tends to make fierceness frantic. In the querulousness of Job we have an example of defect of noble meekness. The discrimination of this attribute elucidates a kind of obstacle in the way of Christianity which, so far as I know, has not been hitherto noticed, and also the method which Christ applied against such obstacles. As regards noble meekness Christ had to enjoin conduct conformable to a quality of which men had previously no experience and for which language therefore had no name. He was not free to coin a word or

your shoes." The spirit of this injunction is, as regards the pretension to climb to heaven on rungs of bodily pain, the spirit of pure asceticism.

define. A Gospel to philosophers might admit of coined words and definitions, but not a Gospel to the poor. Such a message must be put in the familiar language of the poor. There was but one resource, namely, to substitute the name of the quality that most resembled what he would indicate, relying on the engine of sanctification which he constructed in human hearts to make noble meekness an object of Christian experience when his precise meaning would become intelligible. Abject meekness is what most resembles noble meekness, and it is familiar to human experience. It served as a *pis aller* for the ultimate indication of noble meekness.

6*d*. Dignity is proper to reverence and what is of a nature to merit reverential approval.[1] Besides being the faculty by which we intuite dignity, reverence is a basis of dignity. Men are respectable in proportion as they respect. A society void of respect is void of dignity. An eternal bliss of profane men would be as contemptible as an eternal bliss derived from eternal dancing or such as might obtain in a sea-anemone. Reverence and the dignity of which it is a basis is a condition *sine qua non* of a life worth living. To deny this is to imply that there is no rank in pleasure,—that if equal as to quantity the pleasure of the wise man does not excel that of the maggot.

[1] Analogy gives a secondary meaning to the term Dignity, according to which dignity is predicable of other things, *e.g.* the inanimate sublime. The quality denoted by the term according to the secondary meaning is no more a congener of what the name primarily denotes than a lily is a congener of the moral purity which it symbolises. Otherwise I should distinguish the dignity to which I refer as moral, and the other as preter-moral.

6*e*. Authoritative superiors are at first the sole objects of reverence; no sacredness is then discernible but what authority involves. Later, development expands the view of reverence so that equals present to it an aspect of sacredness. The few in whom this enhancement first obtains are distinguished from the *profanum vulgus* by a habit of respectful politeness in their intercourse with one another. A later advance enables reverence to see sacredness in human inferiors, and finally in all conscious beings. *The development of reverence is capable of giving it such an ascendency over its subject that to violate by injustice the sacredness of the neighbour must cause a remorse which no advantage achievable by the injustice could compensate.* Reverence of this degree I distinguish as "*adult*."

6*f*. Reverence is a faculty of moral intuition; for reverential intuition of authority supposes that a suggestion of disobedience must present to the subject a morally bad aspect, and intuition of such an aspect is moral: it involves moral reprobation. A man otherwise destitute of moral discernment might be of quick susceptibility as regards violations of the will of God.

7. There is a faculty which apprehends customary measures of immunity, including liberty, as morally belonging to those who enjoy them, and, therefore, under the sanction of right and duty. The moral faculty contributes nothing toward the determination of these measures. So far as that faculty is concerned, they obtain accidentally. The faculty which apprehends them as being under the sanction of Right intuites no sacredness in its object, and its spirit is as

remote from tenderness as from piety. It influences the hard and impious as well as the humane and devout. Let us distinguish the moral faculty in which custom elicits the sentiment of right and duty as *consuetudinal.* If we believed in creation and final causes, consistency would require us to believe that the consuetudinal moral faculty is merely provisional, one intended to be superseded by reverence and benevolence when these should attain a certain degree of development; for '*adult*' *reverence and benevolence must intuite in every man a right to the largest liberty—the largest immunity—compatible with the welfare of the race.* From this point of view it is intelligible why Christ, in his summary of the commandments, made no account of the consuetudinal source of moral intuition. He addresses his commands exclusively to reverence and benevolence. When these attain the adult degree, they exclude room for the operation of the consuetudinal moral faculty. The dispositions, emotions, and behaviour which have their source in the consuetudinal moral faculty have the property of eliciting, under certain circumstances, moral approval and reproach.

8. The specific difference of the pulchro-moral faculty is that it is conversant about the contraries, magnanimity and pusillanimity. What it apprehends as magnanimity differentiates the objects of its approval, and what it apprehends as pusillanimity those it disapproves. It is the source of hero-worship and of the imitation of heroism by self-love intent upon honour. Its tendency to feed self-love, to adulterate magnanimity with self-approbation and complacency in "the honour that cometh of man," and to exercise vanity in

the simulation of heroism (as instanced in chivalry), tends to arrest the moral development which, at first, it contributes to promote. Self-love, like the umbilical cord, is indispensable to one era of development, and an obstacle to another.

9. Our survey has now exhausted the mental sources of all moral approval. It finds that they are comprised by the mental qualities, Reverence, Benevolence, the Consuetudinal moral faculty, and the pulchro-moral faculty: of these the three first constitute what may be termed the impero-moral faculty; in other words they are the sources of all impero-moral intuition. The fourth we have not decomposed: it is probably simple. The consuetudinal moral faculty we have found to be merely provisional. Outside the intuitional scope of adult reverence and benevolence on the one hand, and of the pulchro-moral faculty on the other, there is no moral goodness,—at least none known to human experience. Our research has scaled a height from which all varieties of moral goodness are discernible.

10. Moral goodness is divisible into the two kinds, impero-moral and pulchro-moral goodness. Another important division separates moral goodness that consists of mental qualities, *e.g.* the qualities reverence and benevolence, from that which consists of moral events, *e.g.* intentions manifested by good behaviour. The former may be distinguished as structural, the latter as non-structural. Structural moral goodness is either impero-moral or pulchro-moral. The latter is as useful as it is beautiful, but its importance is slight compared with that of structural impero-moral good-

ness. This may consist of one or more of the three mental qualities, reverence, benevolence, and the consuetudinal moral faculty. Of these, two are essential to impero-moral perfection, viz. reverence and benevolence. When reverence and benevolence become "adult," when they dominate or exclude fierceness, self-love, and moral impurity, and are united to a sagacity that is "a learned spirit of human dealings," they constitute, as far as man is concerned, impero-moral perfection. But, though short of righteousness, they may have ascendency. This structural impero-moral goodness I distinguish as "adolescent," regarding all lower states and degrees as embryonic. The division gives three kinds of structural impero-moral goodness, viz. the perfect, the adolescent, and the embryonic. The adolescent is, in all probability, the highest that has obtained amongst men,—Christ excepted. It graduates through an infinitude of degrees from embryonism to perfection.

11. It appears then that after it has passed one of the earlier and ruder epochs of its development, the impero-moral faculty, having shed its provisional accessory, the consuetudinal moral faculty, consists of reverence and benevolence; that reverence and benevolence thus combined have two offices, one *critical*, the other *dynamic;* the former their office as moral faculty, the latter their office as propensity; and that *their main tendency, as moral faculty, is to promote their power as propensity.*

12. It is competent to Reverence to acquire a great ascendency while Benevolence is but little developed. The history of the Jews gives us a remark-

able instance of such an ascendency. Reverence in the Jew tended to promote the mental sources of egotistic altruism but not super-affectionate benevolence. To be humane to the seed of Abraham was the extent of the altruism exacted by the godliness of perhaps the godliest race on earth; and it sanctioned hatred of the Gentile. It took Calvary to establish the vital connection between Reverence and Benevolence which more than all other influences has promoted philanthropy and charity, caused it to burst through the human limit and overflow all conscious being, and which promises to make it a basis, or part of the basis, of impero-moral perfection. This application of the ardour of godliness for the development of Benevolence is what chiefly differentiates the Christian from the Mosaic dispensation. I do not pretend to imply that the connection might not have ultimately obtained without such an intervention; but history does not seem to warrant an induction, that, without the bearing on reverence of a person apprehended as the way, the truth, and the life, and who exacted behaviour conformable to love of the neighbour, the connection could obtain.

13*a*. Perfect Impero-moral goodness includes what is commonly denoted by the name Generosity. What a man owes to his neighbour in the way of altruistic self-denial is what he believes to be useful relatively to the welfare of mankind. To give more is folly; to give less, injustice. Generosity, therefore, is not, as men commonly believe, altruism *in excess of* what Duty exacts; for altruism that is folly cannot be accounted Generosity; but it is altruism in excess of what a stingy sentiment of duty *assumes* to be due.

The idea of the altruism that constitutes Generosit varies with the breadth or narrowness of what th subject believes to be exacted by Duty. What seem to one man to be the mere payment of a debt seem to another to be generosity,—altruism in excess o what is due. If, as regards generosity, to get as nea to the definite as the vagueness essential to what : merely comparative allows, we define Generosity to b "large altruism," Generosity is still within the domai of Duty. What the bulk of men regard as extrem generosity Christ accounted mere debt; "and when y have done all these things, say We are unprofitabl servants, we have done that which it was our duty t do." Undoubtedly these words imply that Generosit is a kind of excess over what is due; but this, I tak it, was an accommodation to the moral ignorance an error of the age,—just the kind of accommodation th might be expected of a wisdom which excludes strain ing at gnats, and has to make intelligible to the hea what could not reach it through the entanglemen of Reason. Generosity, therefore, may be define *altruistic largeness;* and, as we owe to our neighbo and mankind whatever of altruism is short of folly,- whatever is approvable by Wisdom as being usef relatively to the welfare of mankind,—Generosity essential to perfect moral goodness.

13*b*. Generosity depends upon the proportion b tween altruistic and self-regarding principles. Benevolence were in no degree opposed by self-lov appetite, or any other non-altruistic principle, altruist extravagance would exclude generosity. So with reve ence, parental and filial love, friendship, etc. In pr portion as the altruistic principles are less checked b

the opposite ones the disposition is either more generous or nearer to Generosity.

14. At a certain point of development Self-love becomes an offence to the moral faculty. Self-love comprehends, and is comprised by, two subgenera, viz. self-esteem and love of honour, and the latter comprehends the two species, love of homage, and love of praise that is not homage. The mental quality on which the love of homage depends is termed Pride, that on which the love of mere praise depends is termed Vanity. The moral estimate of self-love has undergone and is undergoing great change. Proud ambition, when supported by great faculties and not disgraced by flagrant crime, has been held in honour by the pulchromoral faculty,—regarded as a species of magnanimity. Its utility, as supplying competent men for governmental function, has contributed to maintain its credit. But, when we scrutinise pride, and, separating it from the splendour of success, see in it a source of desire to subordinate others, it exposes its true aspect, that of pusillanimity. Then, by those who have faith in the possibility of moral perfection, it is regarded as a useful provisional propensity which forwards man during a certain phase of development, and hinders near its close. The moral credit of ambition has been supported by its seeming disregard of human opinion. As seeking homage, not mere praise, it seems to be above concern for human opinion, whereas vanity is not more weakly and meanly dependent. When deprived of the honour which homage manifests, a Napoleon pines and dies in St. Helena. The utility of the love of honour as a motive of good behaviour recommends it to the moral faculty until it is discovered that the behaviour evinces, not moral

goodness but, a counterfeit of moral goodness,—not less a counterfeit for being indispensable to moral progress up to a certain phase of development. To behave well for honour's sake no more signifies goodness than to love the neighbour for God's sake evinces benevolence. Behaviour that evinces both generosity and disregard of human opinion gives a rare satisfaction to the moral faculty. It excludes suspicion of the duplicity which turns one eye in the direction of a good motive and makes the other squint at honour. Self-love excludes sincerity. It detains us in the imitativeness of childhood,—imitating manhood to win the consideration of the world. Alexander avowed it when he declared that he was incurring the hardship of conquest for the applause of the Athenians. A modern apostle of sincerity, after having detected a trick of self-love which had made him figure as a compound of play-actor and prophet, is made to sob in public over his failure to appreciate during her lifetime the devotion of a deceased wife, incensing himself meanwhile with the perfume of the solemn sympathy which his tragic attitude is to evoke. Yet he was as much beyond us in the direction of sincerity as the embryo that begins to strike at the shell is in advance of one that has not yet developed a beak. To mature the human embryo into manhood—to promote him out of the pusillanimity, childishness, and charlatanism of self-love—is one of the ends of Christianity. The achievement of Christian manhood is what is known to the spiritual members of the Roman Catholic Church as "detachment." Privation of self-love and fierceness, and an enhancement of the faculty of love which excludes effeminacy, are the characteristics of detachment. It regenerates love. In unregenerate love men lean

against each other like stacked guns, incapable of self-sustained erectness. In regenerate love they cherish a sympathy and mutual helpfulness with which they can painlessly dispense. To so formidable a manliness would Christian evolution promote us!—and yet, quick fierceness, under the form of Indignation, being to vulgar view a sign of nobleness, and lack of it, under assault upon honour, a sign of abjectness, the tameness with which the detached endure such assaults is mistaken for baseness.

15. It should now be obvious that perfect impero-moral goodness includes all pulchro-moral goodness, courage and fortitude excepted. If the subject enjoy the physical bases of courage and fortitude it exacts exercises of those attributes; but it does not aggravate by reproach the calamity of being without them.

16. Moral badness, like moral goodness, is either structural or non-structural. Non-structural moral badness is either culpable or inculpable, the former when the subject is, the latter when he is not, free to behave according to moral goodness. He may be devoid of moral discernment, he may be actuated by bad instincts whose vehemence excludes volition,—puts will in abeyance. The savage who when pressed by hunger devours his female without remorse, and the civilian who maddened by opportunity and sexual fire consciously but unoptionally violates moral law by the commission of adultery, are examples of inculpable moral badness. Non-structural moral badness inherent in what is permitted or performed by the will is culpable. Culpable moral badness is the contrary of non-structural impero-moral goodness. St. Paul refers to

the inculpability of a species of moral badness in the deliverance, "but sin is not imputed when there is no law."

17. The term, Conscience, denotes the mental quality on which depends the sentiment of one's own guilt. It belongs to reverence and benevolence to apprehend their subject as culprit when they apprehend him as having violated moral goodness. Is conscience then the moral faculty *quâ* referent to one's own guilt, —the faculty composed of and comprised by reverence and benevolence; or is it a faculty several[1] from, though dependent for its action on, these? This question I do not pretend to answer; nor is it of present importance that I should do so. It seems to me probable that there is an accessory of the moral faculty bearing to it such a relation as fear bears to prudence, and that this accessory is what is denoted by the name Conscience. Fear intensifies the aspect which risk exhibits to prudence, and the putative accessory, my hypothesis pretends, intensifies the aspect which violation on the part of the subject tends to exhibit to his moral faculty. The mental attribute on which Remorse depends is probably the offspring of fear of divine wrath, and it is not improbable that the attribute is capable of surviving the belief on which the generating fear depends; so that, through the transmitting agency of heredity, remorse may obtain in men who do not believe in the divine or who regard retribution as vindictive. That conscience is an accessory, not a constituent, of the moral faculty, seems to be evinced by the fact that there

[1] This is an unusual use of the word "several," but one that is needed. Things that are perfectly like each other are "several," but not different.

are men of fine and potent moral susceptibility who are incapable of the acute and profound sentiment of guilt termed Remorse.

CLXXVI.

1. A shadow has been cast upon virtue by the doctrine that it is in the power of circumstances to promote vices into virtues and degrade virtues into vices. I now apply myself to the exposure of the fallacy of this mischievous and degrading doctrine. My argument will bring to light a species of goodness which the moral faculty has been hitherto reluctant to acknowledge.

2. Deception is divisible into that which is moral and that which is preter-moral (§ clxxi.). Sportive deception is preter-moral; all other deception is moral. Moral deception is either righteous or unrighteous. To deceive a madman with a view to relieve or heal his madness, is an example of righteous deception: perfidy, or the deception of one to whom the opposite of deception is due, is unrighteous deception. Plausibility is not wanting to the thesis that what I term righteous deception is preter-moral. What duty exacts, it might be held, though not agreeable, is not necessarily odious to the moral faculty, and, if not odious, should be ranked as preter-moral. But moral deception is essentially odious to the moral faculty, and, though it be exacted by duty, it is as doses of medical poisons are exacted in illness. It is important in this connection to disentangle two meanings of the term

"truth," viz. the primary meaning of the term, according to which it denotes agreement of what is believed or asserted with what is or what is not, and its secondary meaning, according to which it denotes the opposite of deception. Untruth is preter-moral. This is manifest in the parables of Christ, and in poetry and romance. It is only in connection with perfidy, when it is a constituent of a lie, that untruth seems to intuition to be moral and morally odious. The frequency of these intuitions has begotten an erroneous general synthesis which puts truth as being essentially sacred or obligatory and untruth as essentially evil. It is the perfidy, not the untruth, in a lie, that is moral and morally evil; untruth, in whatever connection, is preter-moral. Noble and reverential minds are averse to the idea of righteous deception. The repugnancy is aggravated by consideration of the abuses which threaten to inundate morality if a compromise with deception allow the latter the least leakage. Priest-craft and king-craft have made righteous deception a pretext for perfidy until they have all but rotted sacerdotalism and royalty: witness, as regards the former, the words "Jesuitry" and "Jesuitical." The bulk of us have been taught to scorn or hold in pious horror the rule, Do evil that good may come. We must not be blinded by these causes of prejudice: righteous deception will not cease to be because we turn our back upon it.

3. A moral *animus* is essential to a moral object: in other words, a moral object must either be a moral *animus* or have one as a constituent, *e.g.* the *animus*, malice prepense, is essential to the moral object, murder, a perfidious *animus* is essential to the moral

object, falsehood: mere homicide and mere untruth—homicide unconnected with malice prepense and untruth unconnected with a perfidious *animus*—are preter-moral.

4. A moral *animus* that makes an act a constituent of a moral object may have more than one intention: if it have two or more intentions one of them is for the most part paramount and the other or others subordinate. For example, the moral *animus* essential to an act of righteous deception involves a paramount intention to confer benefit and a subordinate intention to deceive. The paramount intention of a moral *animus* determines the moral character of the object it contributes to constitute, *e.g.* that of the moral *animus* involved in righteous deception determines the moral character of the act: the subordinate one is morally odious, but its essential repugnancy does not, in the view of wisdom, disgrace the act. It is conceivable that circumstances might determine a duty to practise moral impurity: if inordinate sensuality were a *sine qua non* of the exemption of mankind from eternal torment it would be the duty of a saint to live as a sybarite. In such a case the moral *animus* would involve a paramount and a subordinate intention, a paramount intention to confer benefit, a subordinate one to practise impurity. The moral character of the practice would be determined by the paramount intention, and, in the view of wisdom, would be no more disgraced by the subordinate intention than one who should plunge into a cesspool to rescue a child would be disgraced by the incurred filth.

5. Let moral goodness that involves what is morally odious be distinguished as "paradoxical."

6. Paradoxical goodness has contributed to occasion the error, that circumstances may promote vices into virtues and degrade virtues into vices. It seems to make a virtue of a vice, whereas it merely employs the less to stave off the greater of two moral evils. It gives countenance to an error mainly caused—1st, By what seems to be the caprice and self-contradiction of the moral faculty in respect of what it approves and disapproves; 2nd, By oversight of the dependence of moral behaviour on a moral *animus*. The moral faculty seems to approve in one age or society what it disapproves in another, and in the same individual at one time what it disapproves at another. In the second place a certain behaviour tends, irrespective of an *animus*, to pass for a virtue, and a certain behaviour, irrespective of an *animus*, to pass for a vice. The habitual utterance of truth tends, irrespective of an *animus*, to pass for a virtue, and the habitual utterance of untruth, irrespective of an *animus*, to pass for a vice; behaviour consonant to respect for right of property tends, irrespective of an *animus*, to pass for a virtue, and contrary behaviour for a vice. Now, the moral faculty, though unchanging as regards moral *animus*, varies greatly as to mere behaviour, and so seems at one time to uphold as virtue what at another it condemns as vice. Of course paradoxical goodness tends to beget and nourish the error. The needle is not more constant to the pole than impero-moral approval to an *animus* that affects either justice or purity. It varies as regards the rights to which it refers; for up to a late phase of moral development custom mainly determines our ideas of rights, and, of course, differently in different ages and societies; but it always approves the *animus*, Righteousness,—never its

contrary. It varies as regards what constitutes purity; for intuition of the higher forms of purity is not possible in advance of a late phase of the development of reverence; but it never fails to approve what its subject apprehends as purity: it never approves what it apprehends as impurity. In so far as moral approval relates to beneficence, it is essential to it to approve what, according to the belief of the subject, is, relatively to mankind, beneficent, and to moral reprobation to reprove what, according to that belief, is the reverse. Not that in moral discernment we have always or even commonly in view either beneficence or what relates to mankind. Moral intuition excludes such a reference, and of moral inferences it is only in those which consider a criterion of moral approval and censure that the subject refers to mankind and human welfare. But in so far as we approve righteousness we necessarily, but for the most part inadvertently, approve what, according to our belief, is most conducive to human welfare, and, in so far as we condemn unrighteousness, we necessarily, but for the most part inadvertently, condemn what, according to our belief, is universally maleficent.

7. Those who are for fastening the stigma of caprice on the moral faculty hold it responsible for approval and censure that do not proceed from it. Depravity has its approvals and reprobations[1] as well as the moral faculty, *e.g.* those of the depraved, "who, knowing the judgment of God, that they which commit such

[1] Depraved approval and reprobation are not moral in the sense in which the word means "belonging to the moral faculty," but *are* moral in the sense in which it imports, "being of a nature to elicit moral discernment."

things are worthy of death, not only do the same, but have pleasure in those that do them." These being imputed to the moral faculty it is made responsible for savage approval of savage manners, for example, of parricide in one society, polyandry in another, theft in another, lying in another. We have been abused in respect of moral intuition by this confusion of ideas.

8*a*. But the constancy of the moral faculty as regards the intentions it approves and those it disapproves did not exempt it from a terrible error,—the error that Retribution is a species of justice. In this respect it has been the dupe of fierceness. In the view of fierceness retribution is compensation, and as in other respects when right is violated duty exacts compensation, punishment seemed also to be *due* compensation. This cause of error was backed by the intimacy of the connection between reprobation and anger, an intimacy so great that the connection seemed to be essential. To those who take for granted that indignation is essential to moral reprobation, the pain which indignation desires to inflict seems to be a requital prescribed by the moral imperative, — by eternal Justice. The connection however is merely accidental. There is no more an absolutely necessary relation between moral reprobation and anger than between æsthetic disgust and anger; and, except as supplying the place of the courage needful for the prevention of wrong, anger is an impediment to the moral faculty. Imagine a man pre-eminent in wisdom and courage but void of irascibility. He cordially but without animosity apprehends the wrong-doer as a reprobate, is prompt to apply against him what preventive violence duty may exact, but is incapable of inflicting

retributive pain. It would be difficult for him to conceive what is denoted by the terms "retribution" and "punishment," and, when made to understand them, he would regard as infernal the spirit they signify. His reprobation is modified by charity. By the way it must be acknowledged that to the illiterate Nazarene who founded Christendom belongs the credit of having elicited the conduct and experience which have detached animosity from reprobation,—rescued the moral sense from fierceness. Is it possible that he intended the resulting charity to put out the fires of hell,—to extinguish the doctrine of Hell? This would seem to be a necessary consequence,—one that Christ could not fail to foresee.

8*b*. Let us pause a moment to consider the baleful source of our belief in Hell and of a great part of human misery. We have proverbially allowed that anger is a brief insanity, and nevertheless, under the form of indignation, it seems to be noble; sometimes, as when it thunders in a philippic, even sublime. It is really a convulsion, an analogue of St. Vitus' dance. Relatively to the ends of the short-sighted it may sometimes be useful; but it is always stultifying, always debasing. To have due moral apprehension of the evil in others and to be morally resolute, it is not necessary to go into convulsions. After all, as a condition of moral energy, a fit of anger is at most a fit of Dutch courage. In view of the fact that, with rare exceptions, men are worked by an unconscious force, there is no consistent room for anger; for, even those who approve of the passion allow that it is illegitimate when provoked by irresponsible behaviour, *e.g.* by that of the insane. We are stultified by the

cerebral process that makes us apprehend as culprit the puppet of cerebration. Nero, from this point of view, is a proper object of pity, not of anger, and sinners are more sinned against than sinning. Therefore anger always stultifies. It always debases; not only because stultification is debasement, but because anger holds us at the level of the bad *animus* that provokes. One who cordially knows the optionless condition of man is above the reach of provocation. To be short of this superiority is debasement. Anger against a necessary agent, even though the agent be human, is about as worthy as the kicking of a stone that has stubbed the toe. Is it not time for man to set about relieving himself of this disgrace? The enterprise is by no means a desperate one. He who endeavours to domesticate the apprehension of man as dupe, puppet, and victim of nature, will soon find that the sentiment has an allaying property. If the method of salvation had room for a philosophic reason, Christ, I am persuaded, would have applied this sentiment; but until the preparation of heart-intelligence by child-like obedience has advanced a certain way, reasoning tends to precipitate religion.

CLXXVII.

The discredit cast upon the moral faculty on account of its seeming inconsistency and self-contradiction has been mainly urged against it by the Utilitarian. Utilitarianism comprehends three species, of which one may be distinguished as sordid, another as historical, the third as disinterested. The first is that which denies the existence of disinterested altruism; the

second, allowing disinterestedness, pretends that it is transmuted prudence; the third allows the existence of congenital disinterestedness and differs from intuitionism in no important respect;—Hume is its chief expositor. The intuitionist has no very grave cause of controversy with the historical utilitarian. He does not like the genesis which the latter ascribes to disinterestedness; but, seeing that the existence of the latter is conceded, can afford to overlook the disparagement. The historical utilitarian may be dismissed with the remark that, if he must needs have the sordid somehow connected with the origin of disinterestedness, why not as fosterer, rather than as embryo? Against the sordid utilitarian the intuitionist has a good *casus belli*. It seems to me that I have sapped the speciousness which served as foundation for sordid utilitarianism, 1st, by my analysis of altruism into sordid and non-sordid, egotistic and non-egotistic, affectionate and super-affectionate altruism, enabling an appeal to the supreme court of common experience, 2nd, by displaying the constancy of moral intuition, the putative tergiversations of which were certainly the great bulwark of the doctrine I have undermined. I have reduced the question at issue to one of fact, viz. Do we or do we not experience emotions of super-affectionate benevolence? If we do, fact attests the existence of disinterestedness. A sentiment of super-affectionate benevolence excludes self-regard, and an act which it instigates or moves excludes self-regard. So long as no manifest difference breaks in our view the gradation from sordid to super-affectionate altruism, it is easy to believe that sordidness is commensurate with altruism. This seeming gradation my analysis has broken up, and no one endowed with super-affectionate benevolence

who has considered it can acknowledge consanguinity between the behaviour of the good Samaritan and that of the slave-owner whose altruism has an eye on the market. Sordid utilitarianism is the offspring of able minds destitute either of benevolence or of super-affectionate benevolence. They undertook to explain altruism by what they found in themselves, and they saw in its variety mere variety of sordidness, as the colour-blind see in different colours mere variety of drab.

CLXXVIII.

1. Wisdom is *heart-knowledge* (§ xci. 2) *determined by impero-moral goodness, and combined with a knowledge of human nature that exempts the subject from imposture.*

In the weak-minded and ignorant Reverence and Benevolence make a sorry figure; they constitute a pasturage for imposture. Christ refers to this fault in the parable of the "unjust steward," and commends the instructed and able sagacity on which Wisdom depends.

In the "adolescent" state of Wisdom the heart-knowledge essential to it is *intermittent:* that of perfect Wisdom is the reverse. The species "intermittent knowledge" needs and in this connection deserves elucidation. To this end we may note that Delusion is discernment which completely deceives its subject, and Illusion is discernment that is only partially deceptive. Insane hallucination is an example of Delusion, discernment of the third dimension in pictures an example of Illusion. Now the "emotect" or dur-

able part of the mind from which Emotion proceeds is a teeming source of delusion and illusion which involve either instinctive power or motive. For instance, anger commonly involves the delusion that the offender had option, that he chose to offend, that he is a culprit, that he deserves punishment; and this delusion instigates retaliation. I say "commonly," for the great bulk of men, as I shall show in the next chapter, are puppets of unconscious force. Knowledge of this truth does not exempt from the delusion: it may show through anger of the milder degrees, and so substitute an illusive sentiment of the offender for the delusive one; but an opposite knowledge leaps like lightning from the higher degrees of anger. To arrest the "intermittency" of a species of heart-knowledge and make the latter a constant possession is one of the main ends of Christian conduct,—a discipline by the way as practicable for the peasant as for the philosopher. The causes of this "intermittency" are potent obstacles to growth in Wisdom, and chiefly as being obstacles to "detachment." How easy would "detachment" be to one enjoying a thorough and unintermittent heart-knowledge that men are, with rare exceptions, puppets of unconscious force; for Ambition, the coxcombry that longs to figure before the World, must sicken in a heart possessed by that knowledge. Our liability to sane delusion points to our subjection to law and to the impossibility of becoming masters of ourselves except through *art* in the application of which we treat ourselves rather as things than persons.

Wisdom involves a vigilance that is known to those who have tried to become perfect as "recollection." Let this vigilance be distinguished as Moral. Moral vigilance is a look-out for occasions of action in respect

of which Instinct might steal a march upon Duty and Will. It resembles Attention except as not involving effort or an appearance of effort. The brain keeps the soul vigilant without effort and for the most part with a pleasant feeling of self-possession. The vigilance tends to pass for a continuous action of Will: but it is not an act; it is not a volition.

2. Wisdom is the cardinal constituent of the *Summum Bonum.* The other constituents are Generosity, Courage, Fortitude, and Circumstances that enable prudence and industry to exclude pain. Confining our view to nature,—excluding the supernatural and the aspirations which it evokes,—we can soberly imagine no human condition transcending as to dignity and happiness that of a society of perfectly wise men so equipped and circumstanced. Wisdom, Magnanimity, Health, and Beauty, constitute the perfect man, and the condition of a society of perfect men so prosperously circumstanced as to be able to exclude pain is the *Summum Bonum.* Though this happiness were unattainable, it is of the first importance that it be well considered,—that it be regarded as determining a *direction* in respect of which every advance is an enhancement of human nature, and every recession a victory of the Infernal in Nature. For it is necessary that the dignity of the humility of Wisdom be cordially known in order that Fierceness shall cease to make us enemies one of another: so long as fierceness, under the form of indignation, seems morally beautiful, so long we yield the devil the inch that enables him to take the ell. Consider the perfect man as member of an unwise society. Charity makes him invulnerable to insult and injury,—as unreachable by the missiles of wickedness as Jove by those of the Titans. He under-

stands that in the intercourse of strength with infirmity, strength owes all the submissive accommodation needful, without injustice to self or injury to public welfare, for the preservation of harmony and peace. In so far as his neighbours are qualified by moral goodness for companionship with the perfect, he is companionable to them, but otherwise his relation to them is that of the good physician to the insane patient. What good the circumstances commission him to do them he does with all his heart; what surgery they demand he executes with a hand made firm by charity as well as courage. Parents, brothers, sisters, children, friends, he loves abundantly. Beauty, humour, wit, delight him. He rejoices in the possession and increase of Knowledge. I refer to these things because the militant and hospital work of Christianity have begotten a belief that the mood of this work is essential to Wisdom,—that Wisdom prohibits Pleasure. "Man's inhumanity to man" is the alternative of Wisdom. Our propensities and circumstances make it the interest of every man to prey upon his neighbour. As though, like the Siamese twins, we were organically tied to one another, we are held by certain propensities in a vicinity and intercourse that enables us to envenom each other's life. It has been well said that War is the natural state of man; the war to which Hobbes referred, that of tribe upon tribe, of nation against nation, may be said to be almost innocuous compared with the unremitting war of neighbour upon neighbour. The predatory scheme to which all life conforms shows rife in the nature and history of man. Devoid of Wisdom the species preys upon itself,—is self-torturing, and incapable of its own distress. Philosophers have undertaken to make

men wise by exhibiting to prudence the advantage which *the race* would derive from wisdom, and by showing the pulchro-moral faculty the beauty of wisdom. *But there exists no prudential faculty that is concerned about the advantage of the race,* and in the bulk of men occasions of self-denial put the pulchro-moral faculty in abeyance. It is strong as censor of the conduct of *others* and as an ally of self-love, but barren of self-denying motive. Prudence is concerned about the advantage of its subject, not about that of the race. What should the prudence of Tom, Dick, or Harry reply to a challenge to incur life-long pain for the sake of a possible resulting happiness to the race, to ensue in two or three thousand years if the race last so long? For aught that experience and inference make known, there may be an impassable gulf between man and wisdom; for aught they make known, resources in the womb of nature of which she has never yet given a hint might impart to the next or any future generation native conditions of a perfect wisdom needing for its development no more experience than that of childhood; but, limiting our view to probability discernible by legitimate induction, human nature affords no means for the acquisition of wisdom, if those of which Christ availed be inefficient.

3. The idea of goodness for God's sake is inconsistent. Bad men who are godly may behave for God's sake as though they were good, but the behaviour evinces godliness, not goodness. One who conducts himself perfectly for God's sake resembles a beautiful statue in clay. But it is probable that the good behaviour for God's sake possesses a transmuting virtue capable of converting the atoms of the clay into atoms

of Parian marble. If Christ's enterprise succeed, such a transmutation will be accomplished in man;—the tissue of godliness, by a kind of Talicotian transfer, will be converted into the tissue of Wisdom.

4. If the reader have experienced the Christian spirit it should be obvious to him that, apart from the worship and the mysticism, Wisdom and the Christian Spirit are identical. Wisdom is the Christian Spirit self-apprehended as a plain, homely, sober part of Nature,—a type disappointing to hearts accustomed to the exaltations and intensities of supernaturalism. Can it survive godliness? Science is washing away from its roots the soil of godliness: can it survive? Experience warrants hope and faith that it can. But is there any soil in which the seed of Wisdom could have germinated save that in which Christ planted it—the soil of godliness? Sanctity—the quality in virtue of which sacredness is a paramount power—is essential to Wisdom. Could the other conditions of sanctity have found their complement in a sacredness that does not depend on actual moral worth—the sacredness of mere humanity,—if Reverence had not first climbed toward Heaven upon a symbol of the sacredness of a Creator and Providence? Surely not. People of interior life know that companionable sympathy with those who grovel in the common spontaneity is incompatible with growth in Wisdom. "I never go amongst men," says the author of the *Imitation*, "but I return less a man." Unactuated by the devotion of godliness, who could incur the dreariness of the needful detachment? If conduct conformable to a dominant love of the neighbour, including painful abstinence from the satisfaction of what Nature gives as being righteous indignation,

had not been exacted of godliness, how could vindictiveness have been rooted out of the heart? Now that experience has made known to a considerable part of mankind the aptitude of the Christian Spirit for the conduct of life, so as to interest prudence and common sense in the pursuit of holiness, and that knowledge of the organic necessity which mainly determines the behaviour of the unwise exhibits a *natural reason of charity,* a raft is provided on which the Christian Spirit may save itself when the ark of godliness founders; but human nature gives no ground for the supposition that, without godliness, the Christian Spirit could have embodied itself in human experience.

CHAPTER V.

MAN PUPPET, DUPE, AND VICTIM OF UNCONSCIOUS FORCE.

CLXXIX.

SINCE Consciousness is an effect of unconscious molecular change, and a *sine qua non* of the mental event known as Volition, is not volition an effect of unconscious molecular change? No. The change supplies an indispensable condition of, but does not cause, volition. It makes the mind conscious and possesses it with a practical alternative, but it does not *cause* the preference which the alternative *occasions*. The preference is an uncaused act of the conscious mind. Is this susceptible of proof? It can no more be proved than a deliverance of experience can be proved, or an axiom, or any datum whatever, *e.g.* the existence of the Not-Self: it can no more be proved than the data presupposed by proof. The existence of Matter—the existence of the molecules supposed by molecular change, which Materialism will have to be the cause of volition,—is not susceptible of proof. Yet one of the most eminent scientific authorities of the day is for reducing us all to automata,—denying a dynamic bearing of consciousness on human behaviour,—because the bearing is not sus-

ceptible of proof, and because *a part* of human behaviour is automatic.[1]

[1] I refer to the article in the *Fortnightly Review* of November 1874, entitled, *The Hypothesis that Animals are Automata.* "It seems to me," writes the author of this article, "that in men, as in brutes, there is no proof that any state of consciousness is the cause of change in the motions of the matter of the organism." . . . "If these propositions are well based it follows that . . . we are conscious automata." One of the propositions is that a part of human behaviour is automatic, the other, that "there is no proof that any state of consciousness is the cause of change in the motions of the matter of the organism." By this kind of argument it may be proved that all things are chimeras,—that there is no reality—as follows;—Certain things, *e.g.* the objects of dreams, are chimeras, and there is no proof that any thing is real; therefore all things are chimeras. In so far as the argument derives its conclusion from the second proposition it employs a kind of fallacy that was notorious when Logic was in vogue, namely, *Affirmative conclusion from negative premiss.* If it be allowed that sophism may be inadvertent, it is sophistical, as implying that nothing is credible, or at least above suspicion, but what is susceptible of proof; for instance, that the truth of the thesis, Things equal to the same are equal to one another, which is not susceptible of proof, is not above suspicion. Stilling his logical conscience with such a counterfeit of argument, Professor Huxley hurls his authority against the foundation of human dignity and morality. His exasperation against the "drum ecclesiastic" has to apologise for more than one error in this article. He tells us that molecular change is the cause of all consciousness, and then implies that molecular change *is* change of consciousness; consequently that every consciousness is the effect of a change of consciousness! "I am incapable," he says, "of conceiving the existence of matter if there is no mind in which that existence is pictured," which is as much as to say that matter is a mental image; not a remote object symbolised by a mental image, but the image or immediate object itself. Now, immediate objects are modifications of consciousness, and, if matter be a species of immediate object, it is a modification of consciousness, its molecules are modifications of consciousness, and molecular change is change of consciousness. Therefore, according to Professor Huxley, every consciousness is caused by a change of consciousness! According to this self-contradictory doctrine consciousness is the basis of all entity save time and space, and, nevertheless, has no more to do with human behaviour than the steam-whistle with the motion of the locomotive! The article has a subtler fallacy in the doctrine that Freedom is privation of *extrinsic* hindrance,—that the

CLXXX.

But all other mental event either is, or is the effect of, cerebration. The preference involved in instinctive selection, (wherein, instead of making up our minds, our minds are made up for us),—this and all indeliberate intentions and acts are effects of cerebration; that is, they are effects of an unconscious force: and, since Volition is extremely rare, it appears that nearly the whole of the practical life of men is and has ever been transacted by an unconscious force,—that in respect of it they are, have been, and strongly tend to be, Impersonal agents; for a conscious thing worked by an unconscious force does not correspond to the idea of a personal agent. Personal agency is agency that consists in or is consequent to volition or is permitted by will. The behaviour of the somnambulist, whether he be or be not conscious of it, as not being volition nor consequent to volition nor permitted by will, is not personal agency. In respect of it he is an impersonal thing, as indeed a man is in respect of his daily motion around the centre of the earth, or of the circulation of his blood. When cerebration is the servant of volition, the behaviour it causes is personal agency. One may choose to behave in a given way on certain occasions, and cerebration, obedient to the volition, may, without any fresh intervention of will,

freedom of the Will does not differ from that of water to flow if nothing extrinsic prevent. Freedom of the Will is privation, not of extrinsic but of *intrinsic* hindrance, or that which would exclude choice if every preference were an effect,—if the necessity involved in causation determined what is known as Volition.

cause the purposed behaviour. Such behaviour, although the immediate effect of an unconscious cause, as being the remote effect of a volition, is personal. But behaviour caused by cerebration, and not voluntarily purposed, is impersonal. The unconscious force by which man is for the most part worked, besides excluding personality, dupes its subject. When, in spite of our utmost effort to release ourselves, we are held in a painful, sometimes a maddening, quasi-attention, we are duped by cerebration. When, in daily intercourse, prudence, craft, or wisdom sets us upon stemming some mental habit, and the current sweeps us back, making our behaviour the opposite of what we are striving to make it, we are duped by cerebration. In ambush behind the urgent consciousness which, in such cases, we take to be the *primum mobile* of our misbehaviour, operates its mental cause, an unconscious force. This kind of delusion has so far prevailed over Theology that theologians ascribed to voluntary power even the acts of intentional instinct which defeat the deliberate purpose and effort of the human agent, to whom they imputed as many wills as he has propensities. St. Paul, with less obvious inconsistency, named the instinct, *quâ* source of moral evil, *sin*. Considering the immensity and intensity of the misery from which the human race would be rescued by the achievement of wisdom, or even by universal conduct according to wisdom, it appears that we are victims as well as dupes of the unconscious force that mainly generates human behaviour. The few who, adopting an ideal of human character opposed to the type constituted by their propensities, have resolved at any cost of self-denial to live accordingly, and do actually compel the practical life to conform to

their purpose,—in these the conscious mind is indeed the master of that life. In respect of it they are personal agents. Nor does there seem to be any other issue from the abjectness of the opposite condition. To pass from the state of a conscious manikin, we must incur the self-denial involved in voluntary conduct,—in regular volition determinative of behaviour according to Wisdom.

THE END.

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